

FEED Situation



.....
SPECIAL TOPICS IN THIS ISSUE

- U. S. FARM COSTS OF PRODUCING CORN,
SORGHUM AND BARLEY IN 1974
- JANUARY- MARCH FEED DEMAND FOR CORN
- BARLEY CONSUMPTION AND MARKETING
STRUCTURE CHANGES

TABLE 1.—CORN: MARKETING YEAR SUPPLY, DISAPPEARANCE, ACREAGE AND PRICES, 1969-75

YEAR BEGINNING OCT. 1	SUPPLY	DISAPPEARANCE	ENDING STOCKS SEPT. 30
1969/70	1,118	4,087	1,005
1970/71	1,005	4,152	667
1971/72	667	5,641	1,126
1972/73	1,126	5,573	709
1973/74	709	5,647	483
1974/75 2/	483	4,664	359
1975/76 3/	359	5,767	612- 512

YEAR BEGINNING OCT. 1	ACREAGE	YIELD	SEASONAL PRICES	PRICE SUPPORT OPERATIONS	GOVT.
1969/70	27.2	64.3	54.6	85.9	1.16
1970/71	26.1	66.8	57.4	72.4	1.33
1971/72	24.4	67.0	57.4	71.1	1.57
1972/73	24.4	67.0	57.4	71.1	1.57
1973/74	24.4	67.0	57.4	71.1	1.57
1974/75 2/	24.4	67.0	57.4	71.1	1.57
1975/76 3/	24.4	67.0	57.4	71.1	1.57

YEAR BEGINNING OCT. 1	BASE CR ALLCMT	SET- ASIDE	PLANTED	HAR- VESTED	PER HARVESTED ACRE	RECEIVED BY FARMERS	CHICAGO	OMAHA	GULF PORTS	NATIONAL AVG. CAN RATE	SUPPORT PAYMENTS TO PARTICI- PANTS	TOTAL
1969/70	90.3	27.2	64.3	54.6	85.9	1.16	1.31	1.24	1.42	1.05	.13	1,365.3
1970/71	90.3	26.1	66.8	57.4	72.4	1.33	1.47	1.39	1.56	1.05	.14	1,228.1
1971/72	90.2	24.4	67.0	57.4	71.1	1.57	1.23	1.23	1.34	1.05	.16	893.1
1972/73	88.1	24.4	67.0	57.4	71.1	1.57	1.91	1.80	2.17	1.05	0	1,468.9
1973/74	88.7	24.4	67.0	57.4	71.1	1.57	2.95	2.79	3.11	1.05	0	909.7
1974/75 2/	6/	0	77.8	65.4	71.4	3.02	3.12	3.05	3.26	1.10	0	244.2
1975/76 3/	6/	0	77.9	66.9	86.2	2.44	2.64	2.61	2.83	1.10	0	244.2

1/ UNDER LEAN TO OR OWNED BY CCC; FOR YEARS PRIOR TO 1973 CCC'S INVENTORY DOES NOT INCLUDE QUANTITIES COMMITTED FOR SALE. 2/ PRELIMINARY. 3/ FORECAST. BASED ON JANUARY 1976 INDICATIONS. 4/ EXCLUDES SUPPORT PAYMENT. 5/ AVERAGE EARNED ON TOTAL CORN PRODUCED. 6/ AVAILABLE FOR TOTAL FEED GRAINS ONLY. 7/ OCTOBER-JANUARY 1975/76 AVERAGE.

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SUMMARY

Feed grain disappearance in 1975/76 likely will be some 14 to 16 percent above last year's 172 million. The current expansion in U.S. livestock and poultry feeding and the projected record volume of exports should use up most of the increase in market supplies.

Lower feed grain prices in relation to livestock and poultry product prices have enabled feeders to begin to expand their operations. Feeding in October-December totaled 41 million tons, about the same as a year earlier. An estimated 125-133 million short tons of grains will be used for domestic feeding in 1975/76, 9-16 percent more than in 1974/75. Feed grain exports in 1975/76 likely will be in the record high range of 48-52 million short tons, 21-23 percent more than the 39 million exported in 1974/75. Exports totaled 15 million tons in October-December, the heaviest quarterly movement ever.

Farmers indicated as of January 1 that they intend to plant almost 81 million acres to corn in 1976, 4 percent more than in 1975, and a total of 126 million acres to the four feed grains (corn, sorghum, oats, and barley), 2 percent more than in 1975. These intentions suggest that another large crop may be in the making this year—if weather is normal.

Prices of No. 2 yellow corn at Chicago in early February were around \$2.68 per bushel, about 35

cents below a year ago but a little higher than the harvest lows last fall. Between now and spring planting, there could be some further modest price strength because of stepped-up domestic feeding and the continued heavy export pace. The season average price for 1975 crop corn received by farmers is currently estimated at about \$2.50 per bushel, compared with around \$3.00 last year. As prospects for 1976 crops unfold, in the spring, they will influence the final outcome of 1975 crop corn prices.

Corn stocks in all positions on January 1 totaled 4.4 billion bushels, a fifth more than a year earlier but near stocks of 2 years ago. Corn disappearance during October-December 1975 was 1.7 billion bushels, 11 percent more than in the same quarter of 1974. Domestic feed use at 1.14 billion bushels was little different from a year earlier. Exports of 454 million bushels were up about two-thirds. Domestic feeding in 1975/76 is projected to increase 11-18 percent and exports may be up 20-30 percent. Total disappearance likely will be only slightly less than 1975 production of 5.8 billion bushels, which would result in a continued small carryover this fall of around 500-600 million bushels.

Stocks of sorghum on January 1, at 476 million bushels, were up a fourth from a year earlier, and October-December 1975 disappearance was 317 mil-

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lion bushels, 3 percent more than in the same 1974 quarter. Minimal carryover stocks are again expected this fall because of strong feed and export demand.

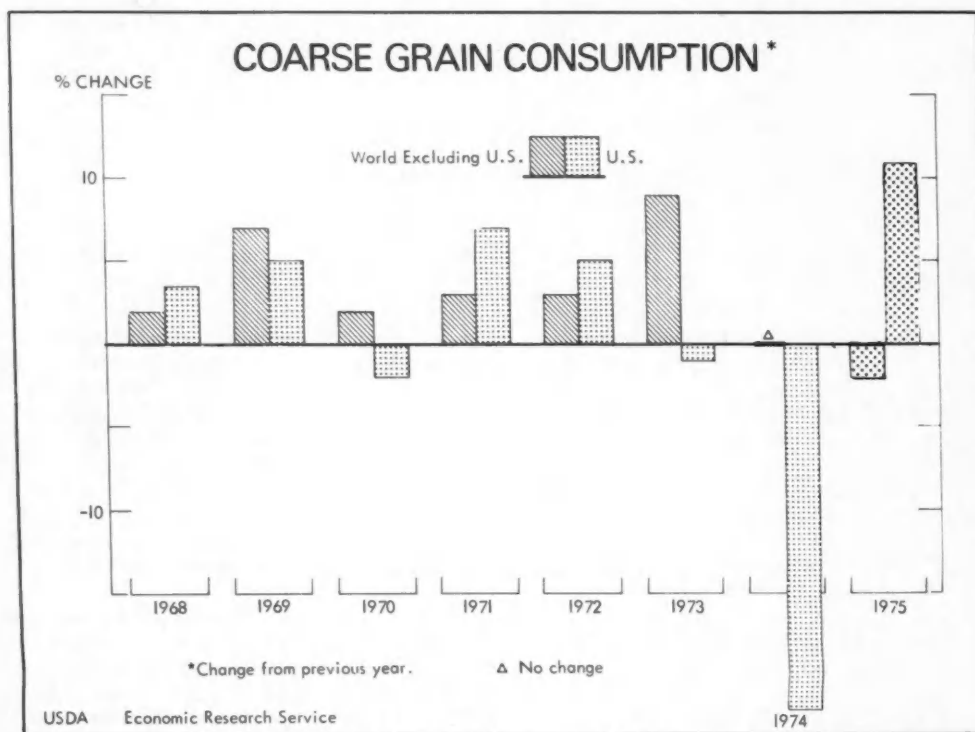
Stocks of barley on January 1 totaled 277 million bushels, a fifth larger than a year earlier. July-December 1975 disappearance of 191 million bushels was down 8 percent because of lower feed demand and exports.

Oat use in July-December 1975 was off 6 percent; beginning supplies were down slightly, and

oat prices have been high relative to other feed grains.

High-protein feeding in 1975/76 is expected to approach the previous record 20 million tons as soybean supplies are large and soybean meal prices favor liberal use of protein in feed formulas.

Hay consumption declined in May-December, mostly due to mild weather last fall. But increased use and continued strong prices are seen for January-April because of the cold weather in the East and dry conditions in the West.



FEED SITUATION



OUTLOOK FOR 1975/76 DEMAND AND 1976 ACREAGE

FEED GRAINS

Domestic Feeding Approached Year-Earlier level in October-December

Feed grain stocks on January 1 totaled 152 million tons, a fifth more than a year earlier. This level of stocks indicated that feed grain use for domestic livestock and poultry feeding in October-December totaled about 41 million tons, almost the same as a year earlier.

Because the corn and sorghum harvests were unusually early in the Corn Belt in 1975 and grain stocks were very low at the end of 1974/75, it is probable that there was more than the usual amount of use of new crop sorghum and corn ahead of the beginning of the new crop year on October 1. Since the October 1 stocks report covers old crop stocks only, and the January 1 report includes old and new crop grain, heavy early feeding of new crop grain could result in understating estimates of domestic feeding use for July-September and overstating feeding use estimates for October-December, although the feeding use estimates for the two quarters combined would be accurate.

U.S. Feeding Responding to Improved Product Prices and Lower Feed Costs

With the larger supply, feed grain prices have been well below the highs of a year earlier. Lower feed costs and stronger prices of some livestock and poultry products, which have improved feeding margins, are encouraging expansion of feeding operations. Placements of cattle on feed have been larger than a year earlier since April-June 1975. In 23 States, placements during the October-December 1975 quarter totaled 8.3 million head, up 27 percent from a year earlier and up 11 percent from the 1973 period. Marketings of fed cattle during October-December, however, still were smaller than a year earlier by 11 percent. The January 1 inventory of cattle and calves on feed totaled 12.3 million head, up 32 percent from October 1, and up 28 percent from January 1, 1975, but 6 percent below January 1, 1974.

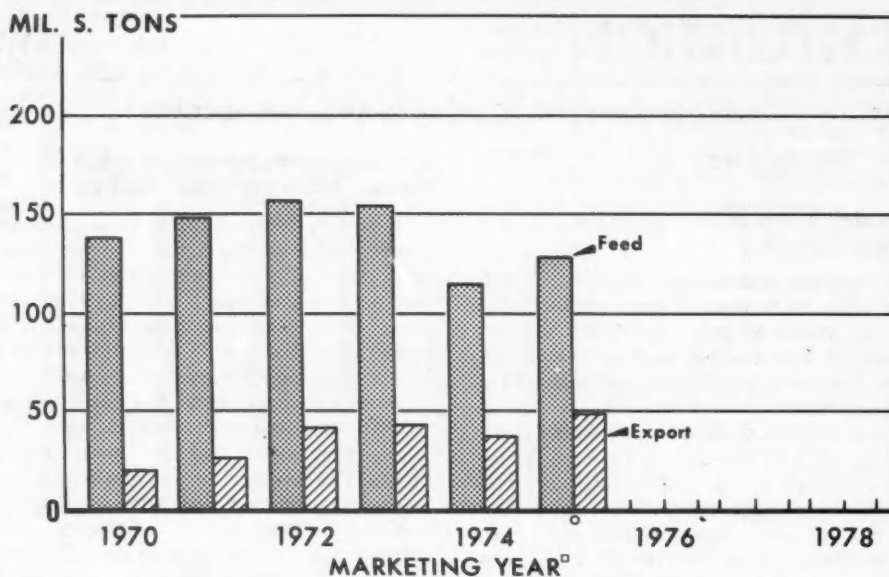
Hog production also has begun to expand. While the inventory of hogs and pigs on December 1, 1975 was 49.6 million head, 10 percent less than a year earlier, the number kept for breeding, at 7.6 million, was 3 percent more than a year earlier. Farmers reported intentions to have 8 percent more

Feed and feed Demand Indicators

Item	1973/74				1974/75				1975/76
	October-December	January-March	April-June	July-September	October-December	January-March	April-June	July-September	October-December
<i>Percent change from previous year</i>									
Feed									
Feed grains	-2	+6	-1	-15	-20	-23	-30	-29	-3
Total grains	-3	+5	-1	-21	-20	-19	-34	-24	-2
Soybean meal	-6	+18	+18	+46	-8	-14	-10	-4	+32
Beef									
Production	-1	+1	+12	+15	+7	+7	-1	+3	+5
Cattle on feed ¹	+2	-6	-8	-21	-24	-26	-31	-15	+2
Fed slaughter	-6	-10	-1	-7	-14	-7	-19	-9	-11
Pork									
Production	-5	+4	+11	+16	+3	-10	-17	-23	-17
Poultry									
Broiler production	+4	+6	+6	+3	-8	-6	-2	+2	+11
Turkey production	+3	+38	+25	+6	-17	-23	-18	-7	+9
Egg production	-1	0	-1	-1	-3	-4	-5	-1	0
Slaughter weights									
Beef	0	+2	+3	-1	-4	-4	-5	-6	-5
Hogs	+2	+3	+2	+1	0	-2	-2	-1	+3
Broilers	+1	+2	+2	+2	0	0	-1	-2	0
Turkeys	0	+6	+1	+1	-1	-6	0	-1	-3

¹ 23 States as of the first of the quarter.

FEED GRAINS—U.S. FEED USE AND EXPORTS



^a BEGINNING OCTOBER 1 FOR CORN AND SORGHUM; JULY 1 FOR OATS AND BARLEY

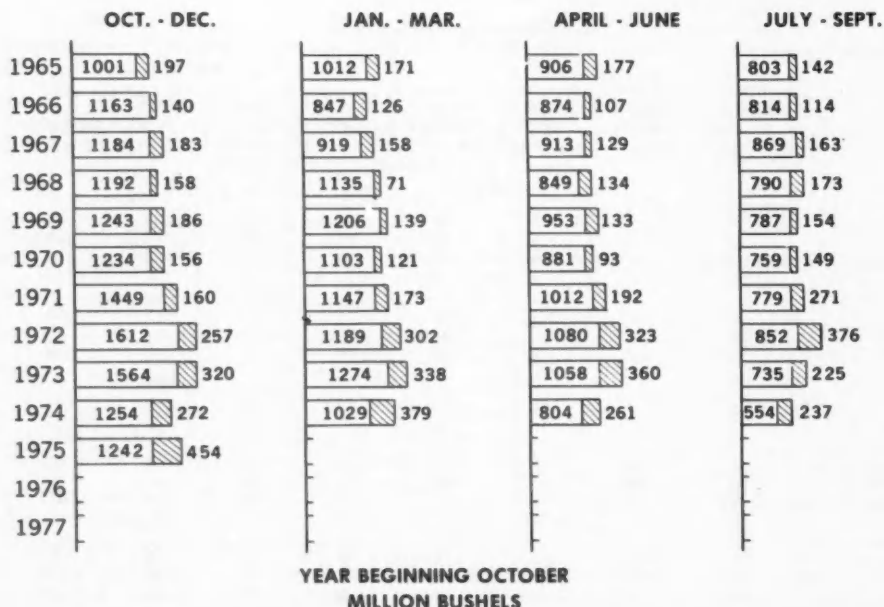
^b MID-POINT OF PROJECTED RANGES

USDA

NEG. ERS 2281-76 (2)

CORN DISAPPEARANCE

Domestic Exports



USDA

NEG. ERS 964-78 (2)

sows farrow in December 1975-May 1976 than a year earlier.

Broiler production in the first half of 1976 is expected to be up about 10 percent from a year earlier. Turkey production in the seasonally light first half is expected to be up about 20 percent.

Thus, expansion in feeding operations is well underway. We project domestic feeding of feed grains to be up as much as a tenth in January-March and to increase further perhaps by as much as a fourth in April-June. There is more uncertainty about the size of the increase projected for July-September because of sagging fed cattle prices in January, although hog feeding likely will be up substantially during the quarter. Use of feed grains for domestic livestock and poultry feeding in 1975/76 is projected at 125-133 million short tons, 9-16 percent more than the 115 million tons fed in 1974/75. This level of feeding would still be around 17 percent below the record feed use in 1972/73.

Exports to Set New Record

Export demand for feed grains is strong in 1975/76 and likely will reach a new record of 48-52 million short tons, up from 39 million in 1974/75 and from the previous high of 44 million in 1973/74. Exports during October-December 1975 totaled 15 million tons, three-fifths above the same period last year and the largest quarterly movement ever. Most of the increase is due to the heavy movement of corn to the USSR. Exports of U.S. grains (corn 38 million bushels and wheat 36 million bushels) to the USSR in 1974/75 totaled only about 2 million metric tons. But this season's grain exports and outstanding sales to the USSR through early February totaled 13½ million metric tons. The 1975/76 export projection anticipates additional grain sales of 3 or 4 million tons to the USSR for a total of about 16 or 17 million metric tons during July 1975-September 1976.

Increased Feed Grain Disappearance Seen in 1975/76

Disappearance of feed grains in 1975/76 is projected to reach 196-199 million short tons, substantially more than last year's low volume but well under the peak in 1972/73 and 1973/74.

Disappearance at this level would almost use up the entire 1975 feed grain production, estimated at 202 million tons. In this event, carryover stocks this summer and fall would show only a modest recovery to 20-23 million tons from last year's 27-year low of 16 million tons. Consequently, as the season progresses, feed grain prices will be sensitive to major supply and demand developments and could fluctuate sharply in response to changes in 1976 crop prospects, here or in other countries.

Farmers Indicate Plans for More Acreage in 1976

As of January 1, farmers reported plans to seed 126 million acres to feed grains this year, 2 percent or 3 million acres more than in 1975. Almost all of the increase would be in corn; there would be little net change in plantings of sorghum, oats, and barley from last year.

Planted Acreage			
	1974	1975	Indicated 1976 ¹
	Million Acres	Million Acres	Million Acres
Corn	77.8	77.9	80.8
Sorghum	17.7	18.3	18.6
Oats	18.0	17.4	17.1
Barley	9.0	9.5	9.5
Total	122.5	123.1	126.0
Wheat			
Winter	52.4	56.2	57.2
Durum	4.2	4.8	5.2
Other Spring	14.8	14.1	14.8
Total	71.4	75.1	77.2
Soybeans	53.5	54.6	50.9
Upland Cotton	13.6	9.6	11.2
Hay ²	60.6	61.9	N.A.
Total, grand	321.6	324.3	

¹ Based on January 1976 indications. ² Harvested acreage.

Of other major field crops, affecting feed grains, intended soybean acreage is placed at 51 million acres, down sharply from last year's 54½ million. The prospective 1½ million acre increase in upland cotton, to around 11 million, and the larger intended corn acreage more than offset the prospective reduction in soybean acreage. Prospective wheat acreage totaled slightly more than 77 million acres, 2 million more than last year and the most since 1953. Planned acreage of feed grain, wheat, soybean, and upland cotton crops totaled 265 million acres, an increase of about 3 million over 1976. However planted acreage of all crops in 1976 is expected to remain at near last year's level.

CORN

Disappearance Heavy in First Quarter of Feed Year

Swelled by a record large export movement, corn disappearance in October-December totaled 1.7 billion bushels, 11 percent above last year, but 10 percent under the peak quarter use in 1972 and 1973. Total disappearance for the 1975/76 marketing season is projected at 5.5-5.6 billion bushels, 15-17 percent above last year's curtailed use, but still

below record marks in 1972/73 and 1973/74. This year's projected usage would be around 95 percent of the 1975 final production estimate of 5.8 billion bushels and would raise the October 1 carryover modestly to about 500-600 million bushels.

Corn Feed Demand Prospects Good

Corn feed demand is expected to recover to 3.55 to 3.75 billion bushels, up from last year's low of 3.2 billion. Feeding margins are much improved from last year and have been generally favorable since mid-1975 for most classes of livestock and poultry. Domestic feeding of corn in October-December totaled 1,136 million bushels, near last year's mark, and reflects expansion that is taking place in livestock and poultry feeding.

Because of sharply increased cattle and broiler feeding and heavier feeding rates by dairymen, corn feeding in January-March probably will be up substantially—perhaps as much as a tenth. And with increased hog feeding coming in the spring, corn feeding in April-June may be up by as much as a fifth.

But a caution flag may need to be waved depending on developments in the cattle sector in the next few months. In late January, fed cattle prices were down to \$38 per cwt. at Omaha. If total costs of fed cattle production are around 43½¢ a pound, some cattle feeders are beginning to experience negative returns. If this situation is temporary, it should not materially affect the season estimate of feed demand. But if cattle prices stay substantially below \$45 for an extended period, there may be second thoughts about further expansion in cattle feeding and cause concern about feed demand this summer and fall.

Most cattle coming into markets this winter probably are from commercial feedlots. As these cattle reach desirable weights, commercial feeders probably will continue to move them to market despite the weak prices. A substantial proportion of the increase in placements since last fall may be in Midwest grain farm feedlots. In the event that prices are still weak when these cattle become ready for the market late this spring and summer, these producers might try to hold their animals in anticipation of higher prices. In any event, the outcome of cattle prices for the remainder of the feeding season will be important for feed demand and prices. Continued low cattle prices could slow the rise in feed demand. Domestic corn feed use accounts for about 70 percent of the total disappearance. Cattle feeding accounts for about 25 percent of all corn fed domestically.

Corn Used for Food, Industry, Alcohol, and Seed Continues to Expand

Although making up only 8-9 percent of total corn disappearance, domestic food, industry, alcohol, and seed use is an important outlet for corn.

The estimated volume of corn accounted for by these uses is rapidly approaching 500 million bushels annually. A major part of the growth is in the wet-milling industry (WMI), much of which is the result of a recent surge in demand for high-fructose corn syrup (HFCS). The WMI increased shipments to the sweetener market to the limits of its capacity following the skyrocketing prices of sugar in the fall of 1974. Now believed to have a capacity of a million bushels of corn daily, WMI may grow by 50 percent by 1980, according to some private sources.¹

Export Movement Phenomenal

U.S. exports of corn surged to a whopping 454 million bushels in October-December, the highest quarterly movement ever. Inspections for export during January and early February continued heavy, averaging over 30 million bushels a week.

Of the total movement in October-December, 98 million bushels or 22 percent went to the USSR. Exports to Japan totaled 49 million bushels, about the same as a year earlier. West Germany received 64 million bushels, about double the volume of 1974. Exports to the Netherlands totaled about 44 million bushels, well above the 38 million of last year. Exports to Eastern Europe amounted to about 23 million bushels, a little ahead of last year's pace.

Corn exports for the entire 1975/76 year are projected at a record 1.40-1.50 billion bushels, substantially above the previous year's 1.15 billion. Exports presently account for nearly a fourth of disappearance, substantially more than the 12 percent of a few years ago.

We believe the Soviet Union will import 375 to 425 million bushels of U.S. corn. Through January, actual shipments and outstanding export sales to the USSR totaled 350 million bushels. The final estimate of the 1975 Soviet grain crop was 140 million tons, critically short of their 216-million-ton goal and of their projected requirements of 200 million tons. Since the Soviet Union's annual port capacity is approximately 30 million metric tons (spread over a 15-month period), imports cannot come close to filling this deficit. Thus, the Soviet Union probably will meet the shortfall in feed needs with:

- (1) Some livestock liquidation, particularly in poultry and hogs.
- (2) Some belt-tightening in concentrate feeding practices, especially with their dual purpose cattle where feeding rations are more flexible.
- (3) Stepped-up imports of meats and other high-protein foods in the future.

Total U.S. corn export commitments (October-January exports plus export outstanding sales as

¹A more detailed discussion is presented in the February issue of the *Sugar and Sweetener Report*.

of January 25) to all nations totaled 1,038 million bushels, well below last year's 1,400 million. More importers have settled down to buying on an "as-needed" basis. With the adequate U.S. supply, there is little fear of export controls.

Southern Hemisphere feed grain crops, which usually are being harvested when the U.S. crop is being planted, are also important to the world market. In Argentina, corn and sorghum plantings got off to a good start last fall, but dry weather during the current growing season apparently will reduce the harvest from earlier expectations. The present USDA forecast of the Argentine corn crop is 6½ million metric tons (about 250 million bushels), or below the relatively small 7½-million-ton 1975 harvest. The smaller crop would mean comparatively light corn exports again by that country during April-September 1976, the last half of the 1975/76 U.S. corn marketing season.

In South Africa conditions have been generally favorable, although production probably may not quite match last year's large 400-million-bushel-plus crop. South Africa's carryover stocks of old crop corn this spring will be relatively large, again assuring a large supply for the world market in 1976/77.

World Corn Production Summary for 1975

World corn production is placed at a record 315 million metric tons, up 12 percent from 1974, because of both increased area harvested and higher yield. In the West, record harvests were recorded in the United States, Mexico, and Brazil. In Eastern Europe, Hungary and Yugoslavia have record crops. But France, a major intra-European corn exporter, probably will have the smallest output in 5 years. The 315-million-bushel crop in the USSR is the smallest in more than 15 years, because of poor weather and smaller acreage. The People's Republic of China, the world's second largest corn producer behind the United States, expects a harvest of approximately 1,250 million bushels, 7 percent greater than its 1974 record production. Thailand's corn crop, much of which goes to Japan, is estimated at 115-120 million bushels and a fifth greater than in 1974.

Firmer Market Seen

The corn market may remain firm at least until the start of the planting season in April. A prospective 8-percent increase in the December-May pig crop, the much larger number of cattle now on feed, the heavier feeding rates by dairymen, and the near capacity production of broilers should help support and perhaps even strengthen prices by spring. But the fundamentals don't point to any

substantial bulge in prices through May. Although this year's corn supply is tight compared with some earlier years, supplies are adequate because the domestic livestock feed base is substantially smaller. And also, large supplies of wheat and soybeans likely will prevent any substantial runup in the corn market.

Daily Chicago corn prices have seesawed between \$2.46 and \$2.72 a bushel since November. Prices in early February were being quoted at \$2.68 per bushel.

For price movements this summer, these factors bear watching:

(1) Development in U.S. winter wheat crop; early February prospects suggest crop will fall short of 1975 record harvest unless growing conditions improve.

(2) Spring weather—its effect on plantings and forage for livestock. (The outcome of 1976 feed crops is especially important because of relatively low carryout predicted for corn.)

(3) Weather in other countries around the world and export movements and prospects.

(4) U.S. livestock and poultry feeding margins.

More U.S. Corn Acreage in Prospect

As of January 1, farmers were planning to seed 4 percent more acreage to corn this spring—up to 81 million acres. This would be the largest acreage since 1961 when the feed grain program was enacted to curtail production because of burdensome stocks and depressed prices. About half of the prospective 3-million-acre increase is in the heart of the Corn Belt—Illinois, Iowa, Indiana, Nebraska, and Minnesota.

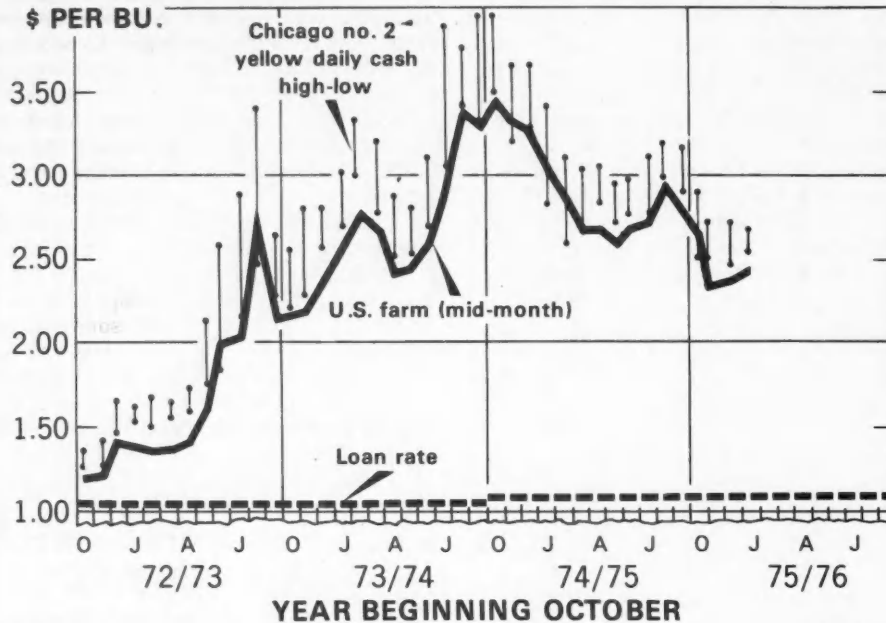
Prospective plantings of soybeans (a major crop competing with corn) were put at 51 million acres, down substantially from last year's 54½ million and the lowest since 1972. Corn and soybean acreages are influenced by costs of production and price relationships between the two crops. So far this year, production costs, potential yields, and recent cash and futures prices at harvesttime favor corn planting over beans in the Midwest.

How good an indication is the January 1 prospective plantings report? Not so good in 1971 and 1972 when feed grain program provisions were modified and that resulted in a significant change in acreage. But in the last 3 years, January prospective plantings have been very close to final plantings.

Of course, January 1 prospective planting data are only indications. Actual plantings can vary from intentions because of inclement weather at planting time, changes in economic conditions, availability of production inputs and the effect of the planting report itself on farmer decisions.

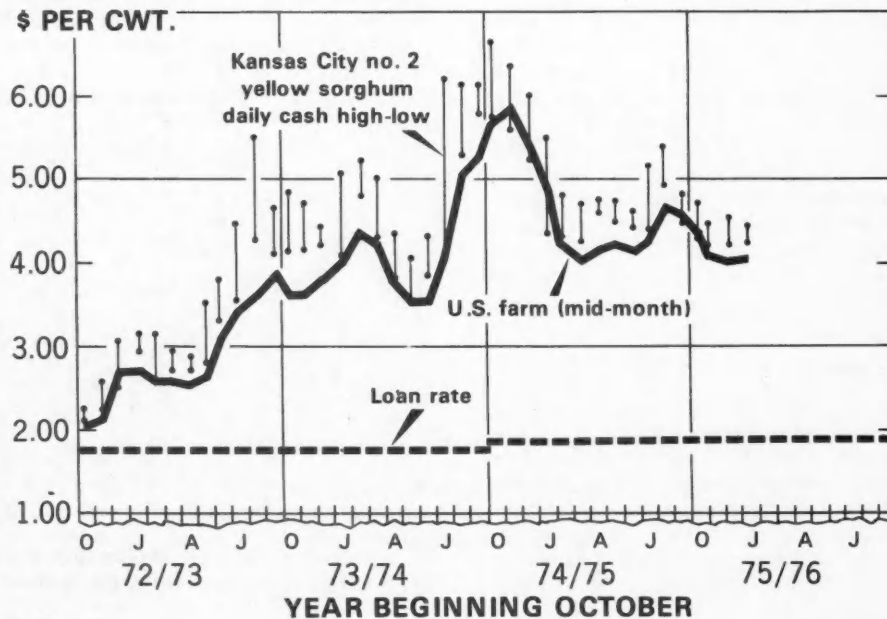
CORN PRICES

\$ PER BU.



SORGHUM PRICES

\$ PER CWT.



Feed grains January 1 prospective plantings
with comparisons

Crop of—	Prospective		July 1 forecast	Jan. 1 (following year)
	Jan. 1	March 1		
	Million acres	Million acres	Million acres	Million acres
Corn				
1971	71.0	71.5	74.7	74.1
1972	71.2	68.5	66.8	66.8
1973	71.5	71.6	72.5	71.6
1974	78.8	78.8	77.7	77.7
1975	77.4	75.3	77.5	77.9
1976	80.8			
Sorghum				
1971	20.2	20.2	20.7	21.3
1972	19.8	18.4	17.4	17.5
1973	19.1	17.5	19.5	19.3
1974	19.6	19.0	17.8	17.7
1975	19.4	18.9	18.2	18.3
1976	18.6			
Oats				
1971	23.5	23.2	21.9	22.0
1972	21.1	21.0	20.5	20.3
1973	20.5	20.5	19.4	19.2
1974	19.0	18.9	18.3	18.0
1975	17.5	18.2	17.4	17.4
1976	17.1			
Barley				
1971	11.0	10.9	11.2	11.1
1972	10.1	10.4	10.5	10.6
1973	10.5	11.0	11.4	11.3
1974	9.6	9.5	9.2	9.0
1975	9.8	10.2	9.6	9.5
1976	9.5			
Total Feed grains				
1971	125.8	125.8	128.5	128.5
1972	122.2	118.3	115.2	115.2
1973	121.6	120.6	122.8	121.4
1974	127.0	126.2	123.0	122.6
1975	124.1	122.6	122.7	123.1
1976	126.0			

SORGHUM

January 1 Stocks Up Sharply; Prospective Carryover Again Minimal

Sorghum stocks on January 1 totaled 476 million bushels, a fourth above last year's low on that date. The stocks indicated a total disappearance of 317 million bushels for October-December 1975, a shade more than last year's 309 million bushels. Both domestic and export demand are expected to continue strong for the remainder of the season. Consequently, the entire 1975 crop, estimated at 758 million bushels, again probably will be used, leaving a "rock-bottom" carryout of around 20 to 30 million bushels on October 1.

October-December Feeding Down From Year Earlier

Domestic feeding of sorghum in October-December totaled 253 million bushels, down

slightly from a year ago. In the seven western States that use most of the U.S. crop cattle on feed were up 2 percent on October 1, 12 percent on November 1, 25 percent on December 1 and up 35 percent on January 1, which will continue to boost demand for sorghum.

The balance sheet for July-September 1975 revealed a negative 19-million-bushel feed residual for sorghum. The statistical deficit was largely the result of a very tight supply for the 1974/75 season coupled with a heavy July-September exports of early harvested 1975 sorghum. This already consumed grain is carried as part of the supply for the 1975/76 marketing season.

With this year's larger supply and turnaround in cattle feeding, feeding of sorghum likely will increase 7 to 16 percent above last year's 437 million bushels.

Exports Moving at Rapid Pace

Since last summer, U.S. sorghum exports have moved at the heaviest pace in several years. In July-September 78 million bushels moved overseas, up 20 million from 1974; in October-December 63 million bushels were exported, 17 million bushels more than a year earlier. Most of the increased shipments were going to Japan, India, Norway, Netherlands, Belgium-Luxembourg, and Venezuela.

This season's exports are projected at 250-300 million bushels, substantially more than the 212 million bushels exported in 1974/75. However, the final outcome of this season's movement hinges a great deal on the outcome of the southern Texas crop which is harvested by early July and generally goes to the export market.

Sorghum Prices Strong Compared With Corn

Since October, sorghum prices began edging up in relation to corn. For the past couple months, sorghum in the Southwest generally has been priced near that of corn (pound-for-pound basis). The traditional relationship places sorghum prices at 88-92 percent of corn. In early February, No. 2 yellow sorghum at Kansas City was being quoted \$4.35 per cwt., up slightly from its low of \$4.20 in late December. Fort Worth sorghum prices (45 to 50¢ above K.C.) moved up similarly. Along with tight supplies, stepped-up cattle feeding, and strong export demand, sorghum prices likely will stay strong compared with corn for the next several weeks.

Prospective 1976 Plantings

Growers indicated as of January 1 that they planned to seed 18.6 million acres of sorghum, not much different from last year's 18.3 million. Modest increases were planned in Kansas, Nebraska, Missouri, and Oklahoma, but decreases

in Texas, New Mexico, and Colorado were nearly offsetting. The prospective drop in Texas sorghum acreage may be due to plans for more corn and cotton acreage.

January 1 acreage indications have varied from actual sorghum plantings. In 3 of the last 5 years, actual plantings wound up 1 to 2 million less than January 1 prospects; once they were virtually the same; and once actual acreage exceeded prospective plantings by a million.

OATS

Feed Demand Sluggish

Feed use of oats in July-December 1975 totaled about 300 million bushels, 8 percent less than in that period of 1974. The reduction in oat feeding may be largely due to its relatively high prices this season. For example, oats at Minneapolis in July-December averaged 105 percent of corn (pound-for-pound basis). Because of their lower feeding value, oats normally are priced at about 90 percent of corn. Therefore, depending on what kind of rations are being formulated, oats probably are being replaced by corn or other grains where possible.

Feed use of oats for the entire 1975/76 season is forecast at 530-570 million bushels, 2 to 8 percent less than in 1974/75. Food and seed use of oats likely will not change materially in 1975/76 from the 93 million bushels of a year earlier. Exports, on the other hand, may at least double last year's 11 million bushels. During July-December, exports amounted to 11 million bushels, compared with only 7 million a year earlier.

These levels of usage would result in total disappearance of 655-685 million bushels, the same or somewhat more than the 1975 crop. In this event, the oat carryover on July 1 could be as much as 30 million bushels below last year's 186 million bushels.

Prices of oats, like prices of other feed grains, have been running below year-earlier prices most of the time since the beginning of 1975/76. In January, prices received by farmers averaged \$1.44 per bushel, down from \$1.62 a year earlier. Oat prices could soften a little by spring but likely will remain strong relative to other feed grains until prospects for 1976 production become clearer.

1976 Acreage Outlook

As of January 1, acreage of fall-seeded oats plus intended spring plantings was expected to total 17.1 million acres in 1976, 2 percent below 1975 and 5 percent less than 1974. Of the six States with more than 1 million acres, Iowa was expecting a 2-

percent increase and Texas a 7-percent decline, while Wisconsin, Minnesota, North Dakota, and South Dakota expected acreage to equal a year earlier.

BARLEY

Feed Demand Slack

Barley disappearance in July-December 1975 totaled 191 million bushels, compared with 207 million bushels a year earlier. Feed usage totaled 106 million bushels, compared with 1974's 114 million. Food, industry, and seed usage was 72 million bushels, virtually the same as a year earlier; exports totaled 13 million bushels, down from 22 million.

For the July 1975-June 1976 marketing year, feed use of barley is expected to total 160-200 million bushels, compared with 178 million bushels in 1974/75. Use for food, seed, and industry is projected at 160 million bushels, up from 150 million, and exports at 40-60 million, compared with 40 million bushels in 1974/75.

The final estimate of the 1975 barley crop is 383 million bushels, a fourth more than the 1974 crop. But because carryover stocks at the beginning of the year were down to 75 million bushels, the 1975/76 supply is 478 million bushels, only 8 percent larger than for 1974/75. If disappearance during the year is in line with projections, carryover stocks of 78-98 million bushels will be moderately larger than 1975, but well below earlier years.

With somewhat larger supplies and prices of other grains lower than in 1974/75, monthly average prices of feed barley have been below a year earlier since October. During July 1975-January 1976, prices of No. 3 or better feed barley at Minneapolis averaged \$2.50 per bushel, down from \$2.80 a year earlier.

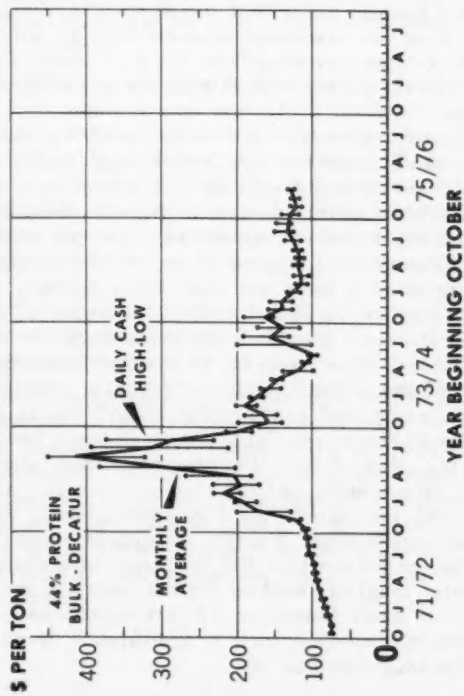
Monthly average prices of malting barley have been lower since August than the unusually strong prices in 1974/75. Prices of No. 3 or better malting barley at Minneapolis averaged \$3.65 per bushel, in July-January, down from the \$4.25 a year earlier.

Prospective 1976 Acreage Unchanged

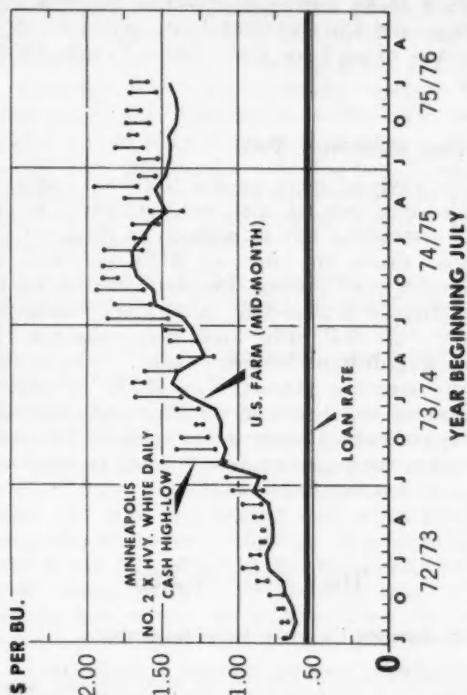
As of January 1, acreage of fall-seeded barley plus intended plantings this spring for the 1976 crop was 9.5 million acres. This was the same as planted acreage for 1975 but 6 percent more than 1974.

In the four leading States that account for about three-fifths of the U.S. barley acreage, planting intentions were up 8 percent in North Dakota, up 2 percent in Minnesota, unchanged in California, and down 8 percent in Montana.

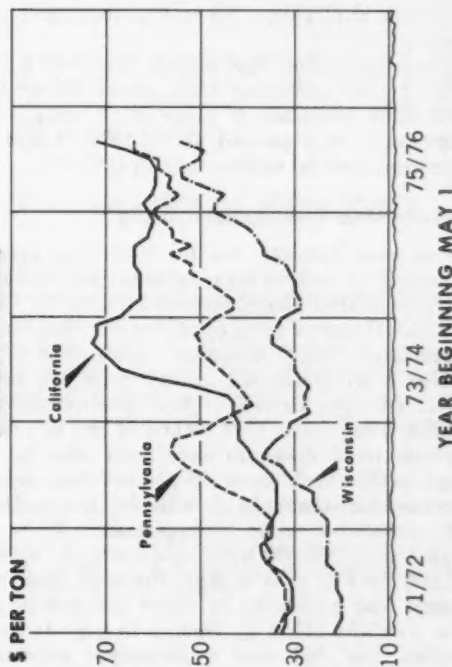
SOYBEAN MEAL PRICES



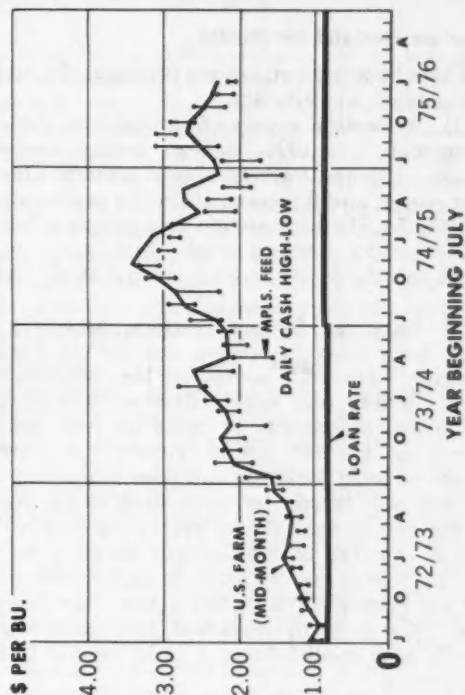
OAT PRICES



ALFALFA HAY PRICES (RECEIVED BY FARMERS)



BARLEY PRICES



HIGH PROTEIN FEED

Stronger Demand for Protein

Three important situations highlight the protein feed outlook for 1975/76:

(1) A plentiful supply of soybeans for domestic processors. The 1975/76 bean supply totaled a record 1.7 billion bushels, almost a fourth above a year earlier and 6 percent above the previous peak in 1973/74. The high-protein feed picture is largely influenced by soybean meal which accounts for about two-thirds of the total volume of all protein feed.

(2) Improved feeding margins, especially for hogs, dairy animals, broilers, and turkeys. Feeding margins have been somewhat less favorable for cattle feeding and egg production. Nevertheless, the heavy placements of cattle on feed last fall encourage heavier use of protein concentrates. Prices received for cattle and hogs this spring and summer will largely influence demand for protein at the end of the 1975/76 marketing season. The overall number of high-protein animals for the feeding season may be as much as 5 percent above the low mark in 1974/75. The general improvement over 1974/75 in livestock-feed price relationships should also contribute to a little heavier feeding per animal.

(3) Price of soybean meal compared with feed grains continue to encourage liberal use of protein in formula feeds. In recent weeks soybean meal (44% Decatur) has been running about 1.3 or 1.4 to 1 for corn at Chicago; the normal relationship was about 1.6 to 1.

Domestic use of high protein feed (44% soybean meal basis, excluding non-protein nitrogen) in 1975/76 is projected at close to 20 million tons. This would be 8 percent above 1974/75 and near the record-high 20 million tons in 1973/74.

Soybean Meal Feeding Rebounding

Soy meal domestic use for 1975/76 is predicted at around 14 million tons, substantially more than the 12½ million disappearance in 1974/75. During October-December 1975, apparent domestic use (disappearance from domestic processing plants) totaled a whopping 4.2 million tons, the highest movement ever for that or any other quarter and a million tons above 1974. Much of the increase in soybean meal disappearance must also be attributed to the much lower (25 percent less) supply of cottonseed available to oil mills. In October-December, cottonseed meal disappearance from mills totaled only 390,000 tons, down sharply from the 575,000 tons a year earlier. Reduced demand for protein feed generated by fewer hog numbers has been partially offset by feeding to slightly heavier weights last fall and a 10-percent increase in

broiler meat production. Nevertheless, there appears to be some inconsistency between grain feeding and the apparent heavy domestic disappearance of soybean meal during October-December.

Soybean Meal Prices Firm

The soybean meal market has been unusually stable since last fall and meal continues to be a fairly attractive buy in relation to prices of feed grains. Since the low of \$113 per ton last November (44% protein, Decatur), the market has strengthened to \$125-\$135 in January-February. A portion of the price rise was seasonal, but increasing demand by feeders also has contributed to the stronger market. The sharp increase in volume of cattle placed on feed and stepped-up feeding of hogs starting in the spring could lead to a modest increase in soybean meal prices during the next few months.

HAY AND SILAGE

Disappearance Down in May-December

Supplies of hay on January 1 totaled nearly 87 million tons, slightly more than the low 85 million a year earlier, but below most previous years. Despite a record number of roughage-consuming livestock, hay consumption during May-December 'was 4 percent below that period of 1974. Much of the drop in consumption was due to reduced feeding rates stemming from the mild weather last fall and the relatively high prices of hay so far this season.

Hay disappearance in January-April is projected at around 70 million tons, which would bring disappearance for the year to 135 million tons, not much different from last year. We are assuming a somewhat higher disappearance rate per animal for January-April because of the colder weather. If disappearance turns out near our projection, the hay carryover on May 1 would total around 17 million tons, down slightly from a year earlier.

January price levels for hay in the Eastern portion of the country partly reflect milk producers' incentive to feed heavy. January hay stocks and prices in the major dairy States indicate heavier feeding this winter. Pennsylvania mid-January hay prices were up \$10 over a year ago with reported hay stocks for the same periods practically unchanged. Weather conditions since late December for much of the East also have dictated heavier roughage feeding for the past 8-10 weeks. Prior to early December, pasture conditions were sufficiently above normal so significantly less harvested roughage was fed.

Further west, in Texas and Colorado, where pasture conditions were extremely dry, prices for hay last fall were more nearly at year-earlier levels due to heavy sell-off of beef breeding stock. Many of the yearling calves that normally pasture fall-seeded wheat were diverted to feedlots. The combination of reduced breeding stock numbers—which occurred following July 1—and the lack of wheat pasture for yearling calves that normally receive hay during the winter months—took upward price pressure off hay supplies.

In California (where weather has been extremely dry), producers were getting \$70 per ton for hay in January, \$7 more than a year earlier. However, supplies on January 1 were about the same as a year ago.

Hay disappearance for January-April period this year largely will depend on weather conditions and how early pastures green up this Spring. In the important dairy regions, demand for good quality legume hay will stay strong with some upward price pressures. In areas that feed large quantities of grass hay to beef cattle and sheep, hay prices should remain at current levels and may soften some by late winter as supplies back up from reduced demand from fewer cattle numbers.

Hay utilization by kinds of livestock show other beef cattle consumed roughly half of total disappearance during 1974/75. Milk cows and dairy replacement stock claimed about a fourth, followed by cattle on feed with 12 percent. The remaining share of utilization went to horses, sheep, and non-farm livestock.

Alfalfa hay and alfalfa hay mixtures, preferred for dairy animals and young beef cattle, showed a slight increase in production in 1975 over 1974. Production was slightly in excess of 75 million tons. Net quantity available as hay from current production would approach 73 million tons, the difference reflecting last season's dehydrated alfalfa meal production.

Corn and Sorghum Silage Yields Up; Harvested Acres Less

Sufficiently higher yields for corn and sorghum harvested for silage increased production by 3 percent, despite 8 percent fewer acres for 1975 compared with 1974. This year's corn silage totaled 113 million tons, 3 million more than 1974. Although sorghum silage totaled near 7½ million tons this year, which exceeded last year's by about 0.3 million tons, it was well below the 1973 level of 9½ million tons.

COSTS OF PRODUCING FEED GRAINS IN 1974¹

In early 1975 a USDA national survey was conducted to determine 1974 costs of producing several major U.S. crops. Feed grain crops included in the survey were corn, sorghum, and barley. A sample of farm operators was interviewed in the regions outlined on the map in Figure 1. Information obtained from the farmers included quantities and costs of purchased inputs, detailed cropping practices and specifications of machinery used, quantity of labor hired, wages paid, share rent and cash rent payments, other general expenses, and the value of cropland for agricultural purposes.

Estimates of four major cost components—direct, general overhead, allocation to management, and allocations to land—are presented in Table 1. Direct costs include labor, power and machinery, seed, fertilizer and chemicals, custom services, irrigation, and interest on operating capital. Overhead includes a proportionate allocation to each feed grain of personal property taxes, telephone and electricity bills, sales taxes, insurance and farm auto. An allocation to management was computed at the rate of 7 percent of gross sales. Allocations to land were computed by six alternative methods reflecting ways in which the land input could be accounted for. An explanation for the different allowances for land are found in footnotes 3 through 8, Table 1.

Average costs per acre and per bushel are shown in Table 1. Per bushel costs were computed on actual 1974 yields and, secondly, on trend yields. Adverse weather in most production areas in 1974 resulted in unusually low yields, causing costs per bushel to be higher than they would have been with normal weather.

CORN—NATIONAL HIGHLIGHTS

Cost Per Acre

The cost estimates from the survey indicate the average cost per acre of producing corn in 1974 ranged from \$153 to \$206 depending upon the method of estimating the land charge. Direct costs averaged nearly \$100 per acre with the largest item in this category being fertilizer at \$32 an acre fol-

¹Contributed by Pat Weisgerber. Based primarily on *Costs of Producing Selected Crops in the United States—1974*, January, 1976. Prepared by the Economic Research Service, USDA, for the Committee on Agriculture and Forestry, U.S. Senate.

PRODUCTION REGIONS FOR CROP COST ANALYSIS

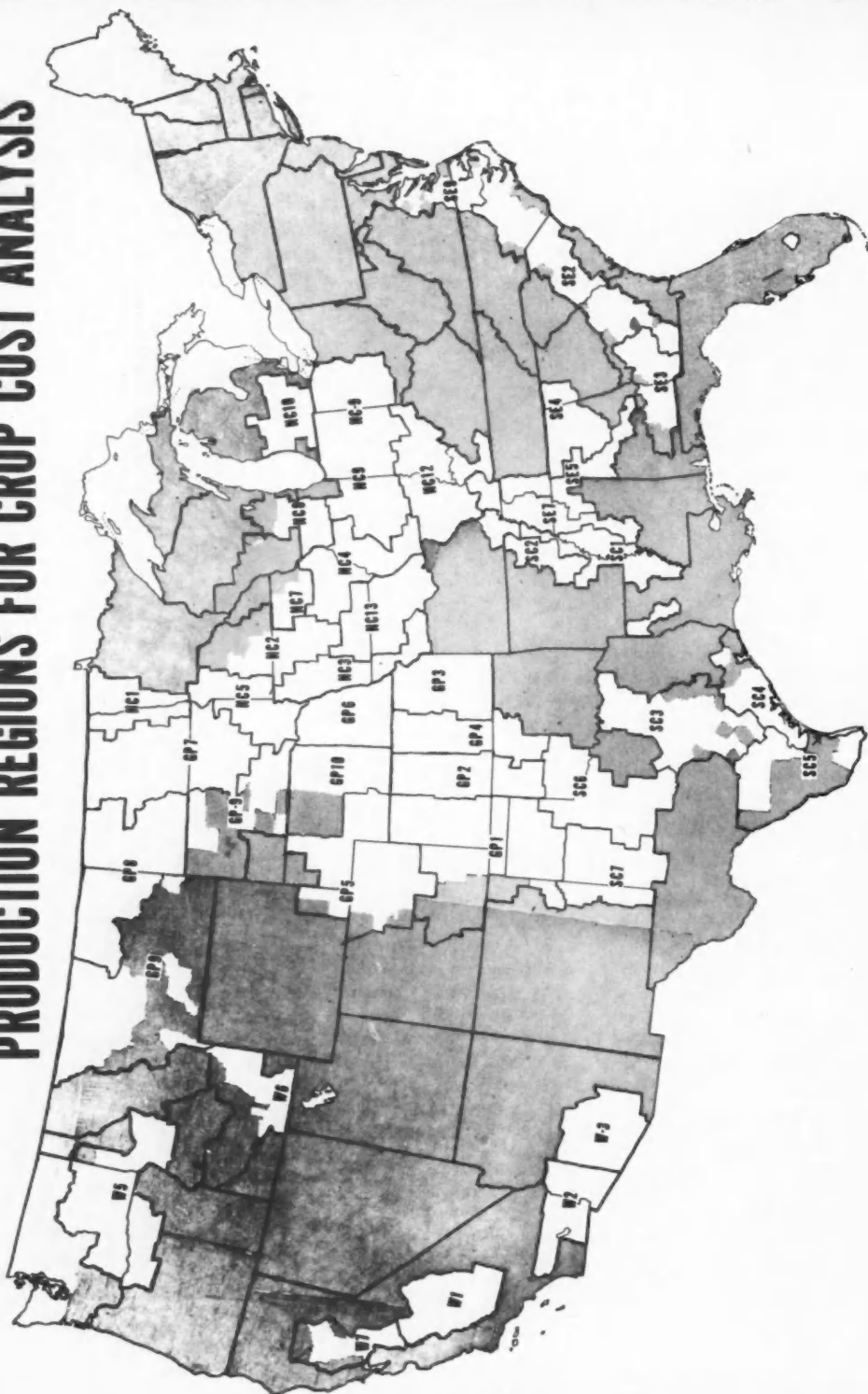


Figure 1

AD-6013

Production costs per acre harvested and per bushel, by cost item, survey regions, 1974

Item	Corn				Sorghum				Barley			
	Cost ¹ per acre	Survey yields	Trend yields 1/	Cost per bushel using	Cost per acre	Survey yields	Trend yields 1/	Cost per bushel using	Cost per acre	Survey yields	Trend yields 1/	Cost per bushel using
Labor	\$7.25	\$0.10	\$0.07	\$7.66	\$0.17	\$0.13	\$4.85	\$0.14	\$0.11			
Power and equipment	28.49	.38	.29	18.00	.41	.31	15.92	.45	.37			
Fuel and lubricants	9.20	.13	.09	5.72	.13	.10	4.74	.14	.11			
Repairs	4.92	.07	.05	3.90	.09	.07	3.04	.08	.07			
Reserve for replacement	9.00	.12	.09	5.14	.12	.09	4.98	.14	.12			
Interest and rental	5.37	.07	.06	3.24	.08	.06	3.17	.08	.07			
Materials	49.93	.67	.51	16.73	.38	.28	16.00	.45	.37			
Seed	8.70	.12	.09	1.96	.04	.03	5.52	.15	.13			
Fertilizer and lime	32.03	.44	.33	10.97	.25	.19	8.86	.25	.21			
Herbicides	6.82	.09	.07	2.18	.05	.04	1.02	.03	.02			
Insecticides and fungicides	2.15	.03	.02	1.39	.03	.02	.31	.01	.01			
Other materials	.23	.01	.00	.23	.01	.00	.29	.01	.01			
Custom services	5.55	.07	.05	5.04	.11	.09	2.56	.07	.06			
Irrigation ^{2/}	2.60	.03	.03	9.52	.22	.16	3.42	.10	.08			
Interest on operating capital	3.82	.05	.04	1.99	.05	.03	1.67	.05	.04			
Total direct costs	97.43	1.31	.99	58.94	1.34	1.02	44.41	1.24	1.03			
Overhead	8.85	.12	.09	5.81	.13	.10	5.59	.16	.13			
Management	14.18	.19	.14	8.14	.19	.14	6.76	.19	.16			
Total excluding land	120.46	1.62	1.22	72.89	1.66	1.26	56.76	1.59	1.32			
Alternative land allocations:												
Ownership basis:												
At current land value ^{3/}	78.18	1.05	.80	34.68	.79	.50	32.50	.91	.76			
At average acquisition cost ^{4/}	32.35	.44	.33	14.02	.32	.24	14.41	.40	.34			
Share rent basis ^{5/}	85.56	1.15	.87	37.44	.85	.65	32.21	.90	.75			
Cash rent basis ^{6/}	40.66	.55	.41	18.18	.41	.31	20.71	.58	.48			
Composite basis:												
At current land value ^{7/}	76.20	1.03	.78	33.90	.77	.58	29.07	.81	.68			
At average acquisition cost ^{8/}	57.23	.77	.58	26.32	.60	.45	18.84	.53	.44			
Value of grazing and silage ^{9/}	4.48	.06	.05	.35	.01	.01						

1/ 98.2 bushels per acre for corn; 58.0 bushels per acre for sorghum; 43.1 bushels per acre for barley. 2/ Includes repairs, reserve for replacement, and interest on investment in irrigation facilities. 3/ Based on estimated current agricultural value of cropland multiplied by current rates of interest on Federal land bank mortgage loans. 4/ Based on estimated average cost of cropland at time of acquisition by present operators multiplied by current rates on interest on Federal land mortgage loans. 5/ Net share rent is the landlord's share of crop receipts minus his share of the crop expenses. If the operator did not share rent, prevailing share rent terms in the region were applied. 6/ Based on average cash rent payments per acre of crop land. If the operator did not cash rent, prevailing average cash rental rates in the region were applied. 7/ Based on prevailing tenure arrangements on each farm, reflecting actual combinations of cash rent, net share rent and owner-operator land allocations. Current values of owned cropland are used in this method. 8/ The details in footnote (7) above apply, with the exception that for owned land, the average value of cropland at time of acquisition is used. 9/ The value of a byproduct is commonly subtracted from the total cost of producing both the primary product and byproduct in order to estimate the cost of producing the primary crop. This method equates the cost of producing a byproduct with its value. In the present case, grain is the primary product while grazing and silage are considered byproducts.

lowed by power and equipment at \$28 an acre. Overhead and management together added another \$23 per acre.

Alternative land charges ranged from \$32 per acre based on the average acquisition cost of owned cropland to \$86 per acre based on net share rent. If land is charged at \$57 per acre (composite basis: average acquisition cost)² total cost of producing corn was \$178 per acre.

Cost per Bushel

Since corn yields were unusually low in 1974, the resulting costs per bushel were extremely high. The average total cost per bushel of producing corn in 1974 ranged between \$2.06 and \$2.77 depending upon the choice of method for estimating land charge. If Method 6 is used, the total cost is \$2.39 per bushel using the survey yield of 74.3 bushels per acre.

A projection of the 1954-69 statistical trend indicated a yield of 98.2 bushels per acre in 1974. Use of this as a normal yield would put costs at \$1.80 per bushel when Method 6 for land charge is adopted.

If a credit of 6 cents per bushel were set up for grazing and silage³ and subtracted from the costs of production, the net cost for producing a bushel of corn for grain would be \$2.33 at 1974 yields and \$1.74 at trend yields.

CORN—SUBREGIONAL COMPARISONS

Cost per Acre²

Costs varied widely among regions and subregions. Total costs ranged from \$114 per acre in southeastern South Dakota with adjoining area of Minnesota to \$270 per acre in the Sacramento Valley of California where corn is grown under irrigation. In the subregions of the Corn Belt costs per acre varied from \$114 to \$207. Cost of fertilizer varied from \$30 to \$40 per acre in the parts of the Corn Belt receiving over 25 inches of precipitation per year. The application of fertilizer was even higher in the Southeast where it constituted about half the cost of combined materials, power, and equipment. The allocation to land tended to be highest in the Corn Belt and lowest in the Southeast. The presence of irrigation tended to boost the land charge as well as the allocation to labor and management.

²The adoption of this particular basis for charging land is more or less arbitrary. It is number 6 of six alternative land allocations in table 1. This alternative, which is the usual selection for the rest of this article, will be termed "Method 6."

³Silage is regarded here as a salvage byproduct whenever the crop did not turn out well enough to be harvested for grain. See also footnote 9, Table 1.

Cost per Bushel²

Total costs per bushel in 1974 ranged from \$2 in the brown loam of the Mississippi Delta and in the Sacramento Valley to \$3.20 in Western Iowa with adjoining Northwest Missouri. The Corn Belt (including the latter area) experienced serious weather problems in 1974; hence the high cost per bushel in that year. In an important subregion of east central Illinois through Indiana and into northwestern Ohio, costs in 1974 were \$2.52 per bushel when the yield averaged only 82.2 bushels per acre.

SORGHUM—NATIONAL HIGHLIGHTS

The survey showed total costs of producing sorghum in 1974 ranging from \$87 to \$110 per acre, including a charge for land. The land charges considered here ranged from \$14.02 per acre (average acquisition cost) to \$37.44 per acre (net share rent basis). Based on survey yields, total per bushel costs ranged between \$2.00 and \$2.50.

Using the Method 6 land charge, the 1974 total cost was just short of \$100 per acre. On a per bushel basis with survey yields, this came to about \$2.25. But on a trend yield basis of 58 bushels per acre, the cost would have been only \$1.70 per bushel.

The national cost picture differed little between dryland and irrigated sorghum—total costs varied less than 10 cents per bushel. Irrigation costs added 50 cents a bushel, but this extra cost under irrigation was largely offset by higher *per bushel* costs on dryland in the categories of power and equipment, materials, and land.

SORGHUM—SUBREGIONAL COMPARISONS

The severe drought to which the Texas High Plains' crop was subjected caused extremely high dryland costs per bushel which far exceeded the per bushel cost of irrigated production. In the subregion north of the High Plains, however, the drought was not so severe, and the cost structure was such that per bushel costs (excluding land allocations) were almost identical at \$1.60 for both dryland and irrigation. The land charge is 70 percent higher on an average per bushel basis for irrigated sorghum land than for dryland. Drought, though not as severe as in the High Plains, caused substantially higher than average costs in the Rolling Plains of Texas and Oklahoma. But in central and southeastern Texas, per bushel costs ran considerably below the national average.

The other major sorghum area, the eastern two-thirds of Nebraska and eastern three-fourths of Kansas, is almost entirely a dryland sorghum

region. Fertilizer applications increase to the east and south in this region as the amount of precipitation increased and the use of herbicides was also greater. Costs per bushel were considerably higher in the eastern portions of the two States where the effects of drought were most apparent in 1974.

BARLEY—NATIONAL HIGHLIGHTS

Total costs of producing barley in 1974 ranged from \$71 to \$89 per acre. This comes to \$2.00 - \$2.50 per bushel when 1974 yields are applied. When the Method 6 charge for land of about \$19 is added to the \$57 per acre other costs, cost per acre is about \$75, and per bushel cost is roughly \$2.10 at survey yields.

The 1974 weighted survey yield (dryland and irrigated land combined) was 35.7 bushels compared with the trend yield of 43 bushels. While production costs are not substantially affected by adverse weather, the costs per bushel are directly affected because of reduced yields. Therefore, production costs per bushel were considerably higher than they would have been with normal yields. At a yield of 43 bushels, the range of total costs would have been \$1.66 to \$2.08 per bushel using the extreme values of the six land allocations. Total costs (Method 6) with normal yields are about \$1.75 per bushel.

BARLEY—SUBREGIONAL COMPARISONS

Total outlays for irrigated barley were such that the costs per bushel did not differ greatly between dryland and irrigated land. In southeastern Idaho,

despite poor yields on dryland, the per bushel costs on dryland were not substantially higher than per bushel costs on irrigation. Costs in this area were above the national average, whereas in the San Joaquin Valley (nearly all irrigated) costs per bushel were below the national average.

In the Northern Plains, where the bulk of the barley is normally grown, the costs per bushel in eastern North Dakota and adjoining northeastern South Dakota were nearly as high as in southeastern Idaho because of very poor yields. Relatively poor yields in western Montana and western South Dakota also resulted in per bushel costs well above the national average. Only in the Pacific Northwest and the western North Dakota-eastern Montana area, where yields appeared to be normal, were costs per bushel on dryland barley less than the national average.

Tabulations and further discussions on sub-regional comparisons of corn, sorghum, and barley are found in Committee Print No. 63-092, Senate Committee on Agriculture and Forestry, U.S. Government Printing Office. For a free copy, write to: U.S. Senate Agriculture and Forestry Committee, 3222 Russell Senate Office Building, Washington, D.C. 20510.

NATIONAL FORECAST

Estimates for 1975 and 1976

Direct costs relating to feed grains in 1975 were approximately 17 percent above the 1974 costs; 1976 costs are projected at an additional 6 percent over 1975. Some inputs, including fertilizer and seed corn, are expected to cost less in 1976 than in 1975.

JANUARY-MARCH FEED DEMAND FOR CORN

by
Robert Butell and Abner Womack*
Commodity Economics Division

ABSTRACT: The second quarter of the corn marketing year (January-March) is normally a period of heavy feeding. Several multiple regression equations are used in determining those variables influencing corn feed use. Production decisions earlier in the marketing year by livestock and poultry producers apparently have a stronger influence on feed demand in the second quarter than in the first. Lagged livestock-corn prices show this influence. Livestock output and livestock prices in the current quarter are also important determinants of feed use. A projection for the January-March 1976 quarter is provided and special mention is made of the slow expansion in hog production.

KEYWORDS: Corn, feed demand, feed-livestock prices, January-March quarter.

This is the second in a series of articles examining factors that influence quarterly feed demand for corn.¹ The least squares approach is used to relate corn feed use in the January-March quarter (QCDF2) to explanatory variables associated with the U.S. livestock industry.

Feed demand is normally strong in the January-March quarter of the marketing year, accounting for 25-30 percent of annual feed consumption and totaling about 1 billion bushels in 6 of the last 7 years.

Several equations were examined for their usefulness in capturing economic variables that significantly influence feed demand. In general, the first equation computed was equivalent to that used in the October-December quarter where current quarter livestock prices, livestock output, soybean meal price, and corn price were assumed to be demand shifters. These factors proved to be weak explanatory variables when applied in the second

quarter. This suggests that there may be lagging economic influences when livestock and poultry producers, responding to current or expected feeding conditions, adjust herd or flock size. These decisions set the stage for feed demand through time since, from an aggregate standpoint, a feeding period often is longer than one quarter. Therefore, current feed demand could be influenced by economic factors that took place several quarters back. The extent of this influence can be captured by lagged input-output prices.

The following equation, which incorporates this influence, is considered to be the "best" equation from the set of alternatives that were tried. Numbers in parentheses below the equation coefficients are "t" statistics, a measure of statistical reliability of the coefficients. Bracketed terms are elasticities computed at mean values of variables.

$$\begin{aligned} \text{QCDF 2} = & 124.36 + (.6402) \text{ PL} + (1.3786) (\text{PL/PC})^* \\ & + (148.7391) \text{ LO} + (142.4702) \text{ DCW} \\ & \quad (2.09) \quad (3.10) \\ & \quad [.21] \quad [.36] \\ & \quad (1.97) \quad (1.94) \\ & \quad [.29] \quad [.008] \\ R^2 = & .79 \quad \text{S.E.} = 69.9 \quad \text{D.W.} = 1.60 \end{aligned}$$

Variable definitions are:

QCDF2: Quantity of corn fed in Jan.-Mar., (Mil. bu.)

*The authors wish to express appreciation to individuals in the Commodity Economics Division for useful comments regarding this research, especially Jim Naive and Dick Haidacher. As usual, the authors accept full responsibility for the final analysis.

¹Robert Butell and Abner Womack, "October-December Feed Demand for Corn," *Feed Situation*, Economic Research Service, USDA, FdS-259, November 1975. Related research references are contained in the bibliography of this article and will not be reproduced here.

- PL: Index of prices received by farmers for livestock products in Jan.-Mar., (1910-14=100).
- PC: Average price received by farmers for corn in quarter, (\$/bu.).
- (PL/PC)*: Average price ratio for the previous three quarters, i.e., $(PL/PC)^* = (PL-1/PC-1 + PL-2/PC-2 + PL-3/PC-3)$ divided by 3.
- LO: Production value of beef, pork, and broilers in Jan.-Mar., (\$ bil., in 1957-59 farm prices).
- DCW: Dummy variable for weather, where DCW = 1 in 1963, = 0 otherwise.

All coefficients in the equation are positive, indicating that current increases in livestock prices (PL) and livestock quantity (LO) will increase current feed demand. Likewise, a positive change in the lagged livestock-corn price ratio (PL/PC)* strengthens feed use. Thus, if in the previous three quarters livestock prices increase relative to corn prices, there will be more corn fed. DCW is included as a weather proxy to take into account unusually heavy feeding in 1963, when January temperatures in major livestock producing regions ranged from 1.5 to 2 standard deviations below average.²

Second quarter feed demand apparently is not very responsive to current feeding developments. Additional variables that showed weak or insignificant responses were current corn, sorghum, and soybean meal prices. The implication is that feeding decisions were made in previous quarters and, once set, producers will continue to feed out even if current conditions worsen.

The elasticity of .36 for the livestock corn ratio (PL/PC)* means that if this relationship increases by 10 percent, there will be a corresponding 3.6 percent increase in corn fed. Similarly, the livestock variables show considerably less influence than estimated in the fall quarter. If current livestock prices (PL) increase by 10 percent, this stimulates corn fed by about 2 percent, which is less than one-half the impact of this variable in the October-December quarter. Also, current livestock quantity (LO) has about one-half the estimated impact when compared with the fall quarter. If LO increases by 10 percent, this generates about a 3 percent increase in corn fed.

Approximately 80 percent of the variance is explained by the estimated relationship. In looking at this equation as a predictor, the figure shows

that the equation captured the large downturn in 1975. The largest error of estimate occurred in 1967 which was a high sorghum feeding year. However, overall results were not improved when the price of sorghum was used.

Estimating Feed Use for January-March 1976

To illustrate the use of the estimating equation, a projection for the January-March 1976 quarter was calculated. The following values for independent (determining) variables were used for the quarter:

Price index for livestock and livestock products, PL	= 500 (1910-14=100)
Lagged price ratio average, (PL/PC)*	= 188.6

The value aggregate for beef, pork, and broilers (LO) was calculated using January-March 1957-59 average prices and January-March production forecasts as follows:

Item	Production	1957-59 Prices		Value
		Mil. lbs.	Cents/lb.	
Beef	6,100	22.24		1.357
Pork	2,600	17.40		.452
Broilers	2,015	18.80		.379
Total	10,715	---		2.188

For the January-March 1976 quarter, the estimated livestock production aggregate (LO) totals \$2.188 billion, or less than 1 percent above the period a year earlier. Using the above values for explanatory variables the equation gives an estimated feed use of 1,030 million bushels or about one-eighth above a year earlier. Of course, the independent variables may be revised which could change the solution.

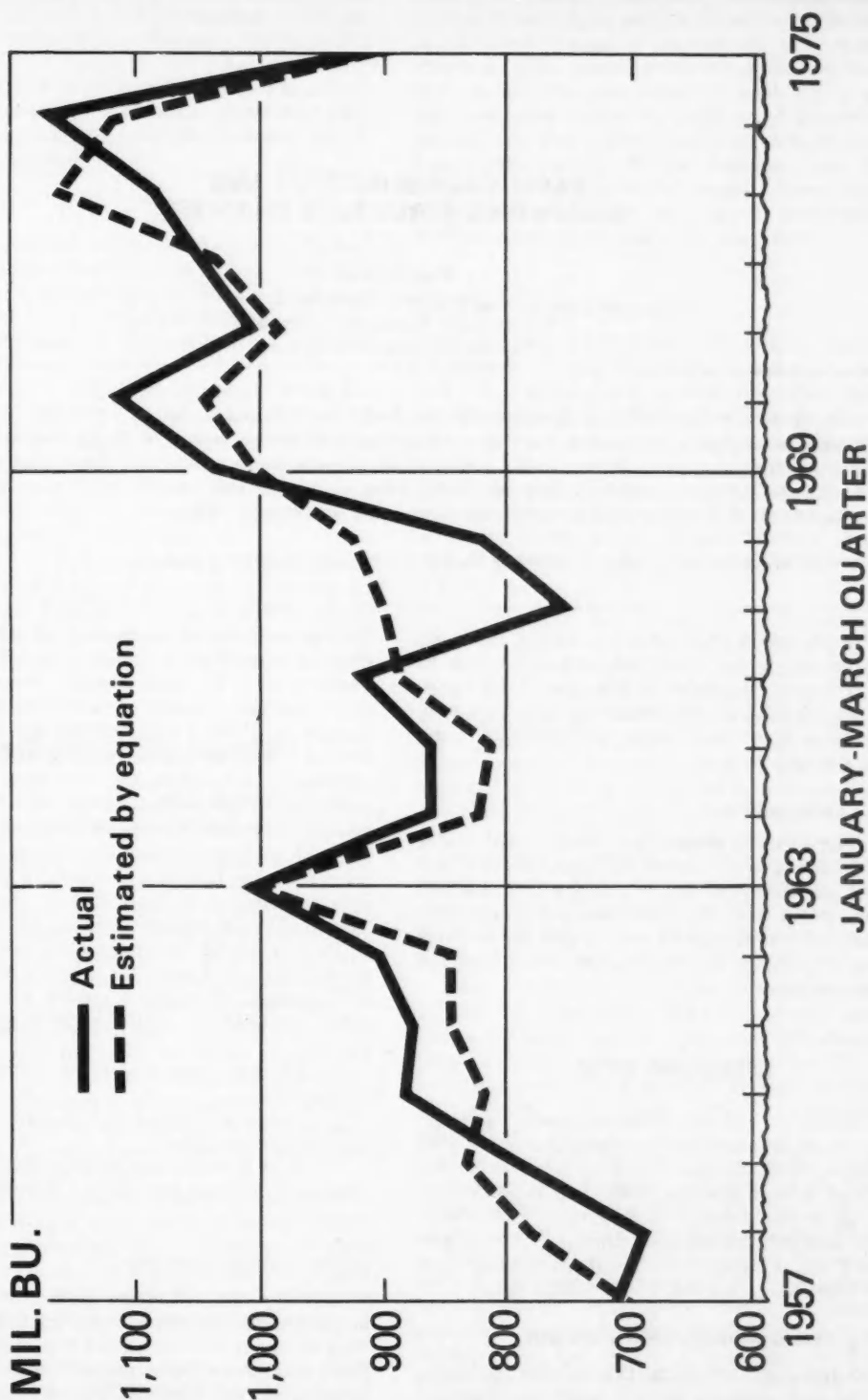
The results shown here should be considered in relation to other market conditions and indicators for feed demand discussed on page 5 of the *Feed Situation*. Hog production, which is now expanding due to very favorable profit margins, is an especially important consideration at this time. Hog producers indicated they intend to increase farrowings 8 percent during December-May. However, low inventory numbers are slowing the recovery in feed use by hogs. The December 1 inventory of hogs and pigs was placed at approximately 50 million head, which is 10 percent fewer than a year ago.

²See: U.S. Dept. of Commerce and U.S. Dept. of Agriculture, *Weekly Weather and Crop Bulletin*, Washington, D.C., Feb. 11, 1963, p. 7.

Corn: Quantity used for livestock feed and related variables, United States, 1956/57 to 1974/75

Year beginning Oct. 1	Quantity of corn demand for feed Jan.-Mar. (QCDF2)	Price received by farmers for livestock and livestock products, 1910-14 = 100 Jan.-Mar. (PL)	Value aggregate (1957-59): farm prices of beef, pork, and broiler production Jan.-Mar. (LO)	Lagged livestock/ corn price ratio (PL/PC)*	Quantity of corn demand for feed annual (QCDY)
	Mil. bu.	Index	Bil. dol.		Mil. bu.
1956/57	710.3	231	1.343	170.1	2,378.3
1957/58	690.9	270	1.246	216.5	2,533.8
1958/59	792.5	267	1.324	248.1	2,783.0
1959/60	886.0	250	1.442	232.6	3,043.0
1960/61	879.2	261	1.436	246.3	3,092.2
1961/62	902.7	257	1.492	243.3	3,212.5
1962/63	1,000.0	251	1.566	246.3	3,155.8
1963/64	861.6	240	1.703	215.1	3,008.9
1964/65	864.2	239	1.728	204.9	2,956.1
1965/66	924.1	300	1.747	227.8	3,361.2
1966/67	757.7	277	1.918	228.8	3,328.1
1967/68	825.1	280	1.935	242.7	3,508.2
1968/69	1,037.8	304	2.004	280.9	3,579.2
1969/70	1,113.9	348	2.020	289.0	3,796.3
1970/71	1,007.9	316	2.139	250.0	3,581.3
1971/72	1,049.4	357	2.155	264.6	3,977.8
1972/73	1,088.4	454	2.115	314.5	4,310.0
1973/74	1,166.4	518	2.165	247.5	4,193.0
1974/75	912.7	421	2.172	143.5	3,178.0

DOMESTIC CORN FEED DEMAND, JANUARY-MARCH QUARTER (QCDF2)



USDA

NEG. ERS 2359-76 (1)

BARLEY CONSUMPTION AND MARKETING STRUCTURE CHANGES

by

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ABSTRACT: Barley used domestically for feed has declined in recent years because of smaller supplies. But barley used by the brewing industry continues to expand because of a consistent growth in demand for beer. Country elevators remain as the major trade channel of barley sold by farmers, but producer-maltster contracting is gaining popularity for the supply assurance of desired malting varieties it offers.

KEYWORDS: Feed barley, malting barley, maltsters, country elevators.

Although minor in relation to total U.S. grain output, barley is an important crop enterprise in North Dakota, Montana, California, Minnesota, Idaho, South Dakota, Washington, and Colorado. These States presently account for four-fifths of the Nation's barley output.

Barley Losing to Wheat

In most areas of production, wheat is the major crop competing with barley for land. Since relaxation of planting restrictions and the dramatic rise in grain prices over the last 3 years, the apparent comparative advantage of wheat and other crops has led to a reduction of 1.5 to 2.5 million acres in barley seedings.

CONSUMPTION

Of barley's annual disappearance, approximately 25-30 percent goes to domestic use for malt beverages, 50-55 percent for feed, 4-5 percent for seed, and a smidgen for food; and exports take about 20 percent. Most of U.S. barley consumption is from domestic production, since imports (mostly in the form of malt from Canada) usually contribute less than 5 percent to the total supply.

Brewing Demand Shows Steady Growth

Over the past 10 years, the volume of barley used for malt liquors (mostly beer) increased 35 percent, reaching 124 million bushels in 1974/75.

Barley used in the production of alcohol and distilled spirits is quite small and has consistently declined over the last several years. In 1974/75, only 2 million bushels of barley went into the production of alcohol and distilled spirits, well below the 6 or 7 million bushels during earlier years.

Despite the economic recession in 1974/75, barley used in production of malt liquors alone totaled 124 million bushels, up 2 million from 1973/74 and up almost 10 million from 1972/73. Over the past 12 years, the volume of barley going into production of malt liquors increased at an average annual rate of 4 million bushels.

The following factors have contributed to the growth in barley used for brewers malt and likely will continue to support further increases in consumer demand for malt liquors over the next few years:

1. Recovery and continued growth in the U.S. economy.
2. Lower age requirements for consumption of alcoholic beverages.
3. Beer is becoming more competitively priced with soft drinks and other beverages in some areas.

Barley Feeding Declining

Another major barley user is the prepared animal feeds (PAF) industry. In 1973/74, about a fifth of the volume marketed was channelled to the PAF industry. This included whole grain and byproducts from the malting, brewing, and alcohol and distilled spirits industries.

Feed use of barley has fluctuated considerably over the past 25 years. Barley feeding increased from 150 million bushels in the early 1950's to 290 million in 1970/71. Since 1970/71, barley feeding has declined about 40 percent largely due to a drop in supplies, and perhaps to some extent that feed use may be secondary to domestic malt and export demands requirements.

Exports

In many countries outside of the United States, barley is the major feed grain in terms of production and use and is especially important in Europe and the Soviet Union. Foreign demand for U.S. barley largely hinges on the world supply of food and feed grains.

Exports continue to be a major market outlet for barley, but the volume fluctuates widely from year to year. After dropping to very low levels in the late 1960's, barley exports have returned to relatively high levels in the 1970's. These increased exports are attributed to the tight supplies and strong world import demand.

The bulk of U.S. barley exports is in the form of grain. Exports of barley malt are equivalent to only around 2-3 million bushels of barley grain annually. Most U.S. barley exports move out through the Great Lakes and Pacific Northwest ports.

MARKETING STRUCTURES

Elevators Are Major Trade Channel, But Producer-Maltster Contracts Are Gaining

Sales to country elevators continue to be the major outlet for barley producers (Figure 1). In 1973/74, an estimated 90 percent of off-farm sales flowed through country assembly points. However, some maltsters are building or purchasing handling facilities nearer to production areas, and as this trend continues, direct marketing will take on added importance. An estimated 15 percent of off-farm marketings in 1973/74 were channelled through maltster-owned intermediate storage facilities. Some of these facilities are located in production areas and others are located nearer to malt plants. These intermediate facilities assemble, store, and clean malt barley.

Maltsters began to contract with farmers in the early 1960's to assure adequate supplies of two-row malting barley varieties. The volume contracted, although never large, may account for 30-50 percent of two-row barley production and 85-90 percent of "choice" varieties at present.¹ In terms of

¹There are several classes, subclasses and grades of barley. Presently, maltsters have started paying premiums for "choice" grades of 2-row barley over 6-row barley because of its higher malt extraction rate.

total malt barley production, the percentage contracted ranges from only 5-10 percent. Contracting of six-row varieties is, at present, only nominal. However, with recent price relationships favoring other crops, the percentage of malt barley grown and marketed under contracts may increase and extend into the States producing mainly six-row barley—Minnesota, North Dakota, and South Dakota. Contracted barley usually flows through country elevators for loading-out purposes and through terminal elevators for inspection.

Terminal Elevators Important

In 1973/74, an estimated 200 million bushels or 54 percent of all barley flowed through terminal and subterminal elevators. Major terminal markets are Minneapolis and Milwaukee. Because the direction of most interstate barley movements for domestic uses is east and since barley is usually moved by rail directly from country elevators to terminal markets, the role of subterminal elevators is minor. Most barley leaving terminal elevators was channelled to maltsters and exporters (Figure 1).

An estimated 45 percent of the total volume marketed was moved through malt houses in 1973/74. Over three-fourths of the malting capacity in 1973 was in Minnesota, Wisconsin, and Illinois. Therefore, the flow of barley from terminal markets generally involved a rather short distance. Barley moving to maltsters in Colorado, Washington, and California does not flow through major terminals. These shipments tend to flow either direct from country elevators or through intermediate storage facilities. With use of barley for malting increasing at the rate of about 4 percent annually, the Minneapolis and Milwaukee terminal markets are expected to assume even greater prominence in the barley industry in the future.

Major food and alcoholic beverage products include beer, ale, malt extracts, alcohol, distilled spirits, whiskey, soups (pearl barley), dressings, baby foods, breakfast cereals, and flour. The malt beverages and export markets account for 39 and 24 percent of total 1973/74 marketings, respectively.

With demand for the major barley products increasing and barley production more concentrated on fewer acres, changes in trade channels for barley may become more pronounced. The flow of barley will continue to be highly concentrated both at the assembly level and at the malting and brewing levels. Integration, which is presently important at the brewing-malting stage, may be extended in the future. Conditions which will encourage future changes in the ownership or control of malt barley appear to be surfacing at the assembly and grower level.

U.S. Barley: Domestic use and exports, 1950-75
(Grain equivalent)

Year beginning: July	Domestic				Exports				Total disap- pearance
	Malt liquors	:Alcohol & :distilled: : spirits :	Food l/	: Seed :	: Animal : feed :	: Total : bushels :	: Grain :	: Malt :	
						Million bushels			
1950	79	16	6	18	145	264	35	5	40
1951	78	9	6	15	152	260	26	5	31
1952	78	4	6	16	134	238	32	5	37
1953	80	6	6	24	130	246	14	5	19
1954	78	5	6	26	185	300	39	4	43
1955	78	7	6	24	227	342	98	5	103
1956	77	7	6	26	216	332	57	5	62
1957	76	6	6	26	219	333	87	5	92
1958	77	7	6	26	231	347	112	5	117
1959	79	8	6	24	232	349	114	4	118
1960	78	7	6	25	257	373	83	3	86
1961	80	7	6	23	241	357	82	2	84
1962	81	5	6	21	230	343	64	3	67
1963	85	6	7	18	233	349	68	3	71
1964	89	6	7	16	251	369	58	3	61
1965	90	7	8	17	197	319	75	2	77
1966	96	7	8	16	211	338	43	2	45
1967	97	7	8	17	206	335	29	2	31
1968	101	7	8	16	227	359	11	2	13
1969	110	7	8	16	247	388	15	2	17
1970	108	5	8	18	289	428	76	2	78
1971	113	4	8	17	266	408	48	3	51
1972	115	4	8	18	238	383	62	4	66
1973	122	4	8	15	237	386	85	3	88
1974 2/	124	2	8	16	176	326	38	2	40
1975 3/					180	340	---	---	50

1/ Malt for food, pearl barley, barley flour and breakfast cereal (allowance).

2/ Preliminary.

3/ Projected, midpoint of ranges.

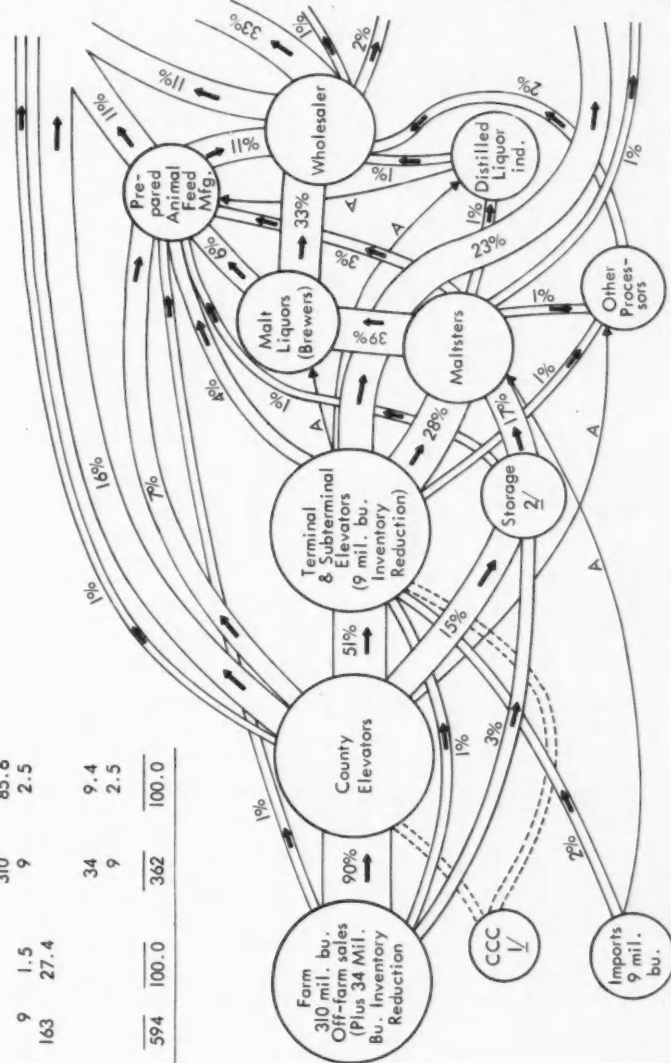
Figure 1

BARLEY MARKETING FLOW

1973/74 Marketing Year

Item	Total Supply Mil. Bu.	Pct.	Vol. Marketed Mil. Bu.	Pct.
Production	422	71.1	310	85.6
Sold Off-farm	9	1.5	9	2.5
Imports	163	27.4		
Beg. Carryover				
Carryover Reduc.				
Farm Elevator	34		9.4	
	9		2.5	
Total	594	100.0	362	100.0

Mil. Bu. Equiv.	Item
4	Seed
79	Prepared Animal Feed
58	Whole Grain for feed
120	Brewers Malt: beer, ale, malt extracts.
5	Distillers Malt, alcohol, distilled spirits, whiskey.
8	Barley Food Products: soups, dressings, baby foods, cereal, flour
274	Total Domestic
85	Whole Grain
3	Processed Products
88	Total Exported
	Ending Carryover:
120	Whole Grain
55	On-farm
65	In Elevators



1/ None in 1973/74. A = Less than 0.5%. 100% volume marketed (362 mil. bu.).
2/ Intermediate holding facilities for malt barley. Facilities may be located at country points or adjacent to malt plants.

TABLE 2.--FEED GRAINS: MARKETING YEAR SUPPLY, DISAPPEARANCE, ACREAGE AND PRICES, 1969-75 1/

YEAR 2/	SUPPLY		DISAPPEARANCE				ENDING STOCKS					
	STOCKS	PRODUCTION	IMPORTS	TOTAL	FEED	DOMESTIC USE	EXPORTS	TOTAL DISAPPEARANCE	GOVT. STOCKS			
						FOOD, INDUSTRY, AND SEED						
1969/70	50.2	177.4	.4	228.0	141.8	16.4	156.2	21.2	179.4	20.8	27.8	48.6
1970/71	48.6	160.1	.4	209.1	138.9	16.3	155.2	20.7	175.9	14.2	19.0	33.2
1971/72	33.2	207.7	.5	241.4	149.0	16.7	165.7	27.3	193.0	17.9	30.5	48.4
1972/73	48.4	199.9	.4	248.7	156.2	17.0	173.2	43.1	216.3	21.7	10.7	32.4
1973/74	32.4	205.0	.2	237.6	153.3	17.7	171.0	44.4	215.4	20.3	1.9	22.2
1974/75 4/	22.2	165.3	.5	188.0	115.0	18.0	133.0	39.2	172.2	14.9	0.9	15.8
1975/76 5/	15.8	202.4	.5	218.7	124.0-135.1	18.5	143.3-151.6	52.3-47.5	195.6-199.1			23.1-19.6

YEAR	ACREAGE	YIELD	SEASONAL INDEX	PRICE RECEIVED BY FARMERS	TOTAL PAYMENTS TO PROGRAM PARTICIPANTS	MILLION DOLLARS	
1969/70	133.0	39.1	115.3	95.5	1.86	97	1,644.5
1970/71	133.0	37.4	118.8	99.3	1.61	110	1,509.7
1971/72	132.5	18.2	128.0	106.3	1.95	96	1,060.1
1972/73	125.8	36.6	115.1	94.0	2.13	141	1,865.3
1973/74	130.0	9.4	121.4	102.4	2.00	222	1,170.8
1974/75 4/	89.0	---	122.5	100.6	1.64	250	327.8
1975/76 5/	85.0	---	123.1	106.8	1.93	213 7/	

1/ AGGREGATED DATA ON CORN, SORGHUM, OATS AND BARLEY. 2/ THE MARKETING YEAR FOR CORN AND SORGHUM BEGINS OCT. 1; JULY 1 FOR OATS AND BARLEY. 3/ UNDER LCAN TO CR OWNED BY CCC; FOR YEARS PRIOR TO 1973 CCC'S INVENTORY DOES NOT INCLUDE QUANTITIES COMMITTED FOR SALE. 4/ PRELIMINARY. 5/ FORECAST; BASED ON JANUARY 1976 INDICATIONS. 6/ EXCLUDES SUPPORT PAYMENT. 7/ OCTOBER-JANUARY 1975/76 AVERAGE.

TABLE 3.--Sorghum: Marketing Year Supply, Disappearance, Acreage and Prices, 1969-75

YEAR BEGINNING OCT. 1	SUPPLY		DISAPPEARANCE		ENDING STOCKS SEPT. 30							
	REGAINING STOCKS	PRODUCTION	IMPORTS	TOTAL	FEED	DOMESTIC USE						
1969/70	287	730	---	1,017	638	9	647	126	773	60	184	244
1970/71	244	684	---	929	684	10	694	144	838	22	68	90
1971/72	90	876	---	966	692	9	701	123	824	50	92	142
1972/73	142	809	---	951	660	6	666	212	878	60	13	73
1973/74	73	930	---	1,003	702	6	708	234	942	59	2	61
1974/75 2/	61	629	---	690	437	6	443	212	655	35	0	35
1975/76 3/	35	758	---	793	457-507	6	473-513	300-250	773-763			20-30

MILLION BUSHELS												
YEAR BEGINNING OCT. 1	ACREAGE	YIELD	SEASONAL PRICES		PRICE SUPPORT OPERATIONS	GOVT.						
			NO. 1	NO. 2								
1969/70	24.7	7.5	17.2	13.4	54.3	1.91	2.07	2.42	2.30	1.61	.28	233.2
1970/71	24.7	7.4	17.0	13.6	50.4	2.04	2.32	2.73	2.59	1.61	.33	236.9
1971/72	24.6	4.1	20.4	16.3	53.7	1.87	2.05	2.51	2.39	1.73	.31	167.0
1972/73	23.7	7.3	17.3	13.4	60.5	2.45	3.24	3.75	3.73	1.79	0	249.2
1973/74	23.9	2.0	19.2	15.9	58.7	3.82	4.64	5.13	5.07	1.79	0	183.4
1974/75 2/	6/	0	17.7	13.9	45.3	4.96	5.01	5.61	5.45	1.88	0	68.4
1975/76 3/	6/	0	18.3	15.5	48.0	4.14 7/	4.50 7/	4.90 7/	5.00 7/	1.88		

1/ UNDER LOAN TO OR OWNED BY CCC! FOR YEARS PRIOR TO 1973 CCC'S INVENTORY DOES NOT INCLUDE QUANTITIES COMMITTED FOR SALE. 2/ DEFERRED. 3/ FORECAST! BASED ON JANUARY 1976 INDICATIONS. 4/ EXCLUDES SUPPORT PAYMENT. 5/ AVERAGE EARNED ON TOTAL SORGHUM PRODUCTION. 6/ AVAILABLE FOR TOTAL FEED GRAINS ONLY. 7/ OCTOBER-JANUARY 1975/76 AVERAGE.

[illegible]

1/ UNDER LOAN TO OR OWNED BY CCC; FOR YEARS PRIOR TO 1973 CCC'S INVENTORY DOES NOT INCLUDE QUANTITIES COMMITTED FOR SALE. 2/ LESS THAN 500,000 BUSHELS. 3/ PRELIMINARY. 4/ FORECAST BASED ON JANUARY 1976 INDICATIONS. 5/ NOT INCLUDED IN THE PROGRAM. 6/ EXCLUDES SUPPORT PAYMENT. 7/ JULY-JANUARY, 1975/76 AVERAGE. 8/ FAVR, ONLY BEGINNING OCTOBER 1975.

1/ UNDER LOAN TO OR OWNED BY CCC FOR YEARS PRIOR TO 1973 CCC'S INVENTORY DOES NOT INCLUDE QUANTITIES COMMITTED FOR SALE. 2/ LESS THAN 500,000 BUSHELS. 3/ PRELIMINARY. 4/ FORECAST BASED ON JANUARY 1976 INDICATIONS. 5/ NOT INCLUDED IN THE PROGRAM. 6/ EXCLUDES SUPPORT PAYMENT. 7/ JULY-JANUARY, 1975/76 AVERAGE. 8/ FAVY, ONLY BEGINNING OCTOBER 1975.

TABLE 5.--BARLEY: MARKETING YEAR SUPPLY, DISAPPEARANCE, ACREAGE AND PRICES, 1969-75

YEAR BEGINNING JULY 1	SUPPLY	DISAPPEARANCE	ENDING STOCKS JUNE 30
1969/70	201 427 13 641 247 141 388 17 405 120 116 236		
1970/71	236 416 9 661 289 139 428 78 506 65 90 155		
1971/72	155 464 15 634 266 142 408 51 459 96 79 175		
1972/73	175 423 14 612 238 145 383 66 449 113 50 163		
1973/74	163 422 9 594 237 150 387 88 475 115 4 119		
1974/75 2/	119 304 20 443 178 150 328 40 368 75 0 75		
1975/76 3/	75 383 20 478 160-200 160 320-360 60-40 380-400 98-78		

ACREAGE	YIELD	SEASONAL PRICES	PRICE SUPPORT OPERATIONS	GOVT.
BASE OR ALLOTMENT	SET- ASIDE	MADE- FOR GAIN	VESTED FOR GAIN	PLANTED
18.0	4.4	10.3	9.6	44.7
18.0	3.9	10.5	9.7	42.8
18.0	0	11.1	10.2	45.7
18.0	4.9	10.6	9.7	43.6
17.3	1.4	11.2	10.5	40.3
1974/75 2/	7/	0	9.0	37.2
1975/76 3/	7/	0	8.7	44.0

MINNEAPOLIS	FRESNO	NATIONAL	GOVT.
NO. 1 OR BETTER	NO. 2	AVG.	PAYMENTS
1.06	1.29	.83	.06
1.11	1.43	.83	.06
1.04	1.50	.86	0
1.21	1.72	.86	0
2.10	2.74	.86	0
2.52	3.14	.90	0
2.48 8/	2.85 8/	.90	.90

1/ UNDER LOAN TO OR OWNED BY CCC FOR YEARS PRIOR TO 1973 CCC'S INVENTORY DOES NOT INCLUDE QUANTITIES COMMITTED FOR SALE IN 1975
THE INVENTORY WAS LESS THAN 500,000 BUSHELS. 2/ PRELIMINARY. 3/ FORECAST BASED ON JANUARY 1976 INDICATIONS. 4/ EXCLUDES SUPPORT
PAYMENT. 5/ 60% TO 70% PLUMP OR BETTER. 6/ AVERAGE EARNED ON TOTAL BARLEY PRODUCE. 7/ AVAILABLE FOR TOTAL FEED GRAINS ONLY. 8/

TABLE 6.--CORN: MARKETING YEAR SUPPLY AND DISAPPEARANCE, QUARTERLY, 1972-75

YEAR AND QUARTERS BEGINNING OCT. 1	SUPPLY		DISAPPEARANCE		ENDING STOCKS	
	:		:		:	
	:	:	:	:	:	:
:	:		:		:	
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TABLE 9.—OATS AND BARLEY: MARKETING YEAR SUPPLY AND DISAPPEARANCE, QUARTERLY, 1972-75

YEAR AND QUARTERS BEGINNING JULY 1	SUPPLY				DISAPPEARANCE					ENDING STOCKS
	BEGINNING STOCKS	PRODUCTION	IMPORTS	TOTAL	DOMESTIC USE			TOTAL EXPORTS	DISAPPEAR- ANCE	
					FEED	FOOD, INDUSTRY AND SEED	TOTAL			
OATS MILLION BUSHELS										
1972/73										
JULY-SEPT.	541	692	1	1,234	290	13	303	3	306	928
OCT.-DEC.	928	---	1	929	138	13	151	2	153	776
JAN.-MAR.	776	---	1	777	170	22	192	1	193	584
APR.-JUNE	584	---	1/	584	113	45	158	16	174	410
MKT. YEAR	541	692	3	1,236	711	93	804	22	826	410
1973/74										
JULY-SEPT.	410	667	1/	1,077	237	15	252	17	269	808
OCT.-DEC.	808	---	1/	808	137	15	152	19	171	637
JAN.-MAR.	637	---	1/	637	178	22	200	1	201	436
APR.-JUNE	436	---	1/	436	114	46	160	21	181	255
MKT. YEAR	410	667	1/	1,077	666	98	764	58	822	255
1974/75 2/										
JULY-SEPT.	255	614	1/	869	206	13	219	3	222	647
OCT.-DEC.	647	---	1/	647	122	14	136	4	140	507
JAN.-MAR.	507	---	1/	507	160	21	181	1/	181	326
APR.-JUNE	326	---	1/	326	91	45	136	4	140	186
MKT. YEAR	255	614	1/	869	579	93	672	11	683	186
1975/76										
JULY-SEPT. 2/	186	657	1/	843	199	14	213	3	216	627
OCT.-DEC.	627	---	1/	627	104	14	118	8	126	501
JAN.-MAR.										
APR.-JUNE										
MKT. YEAR 3/	186	657	1/	843	530-570	95	625-665	30-20	655-685	188-158
BARLEY MILLION BUSHELS										
1972/73										
JULY-SEPT.	175	423	3	601	101	34	135	12	147	454
OCT.-DEC.	454	---	7	461	56	30	86	13	99	362
JAN.-MAR.	362	---	1/	362	52	36	88	16	104	258
APR.-JUNE	258	---	4	262	29	45	74	25	99	163
MKT. YEAR	175	423	14	612	238	145	383	66	449	163
1973/74										
JULY-SEPT.	163	422	1	586	98	36	134	30	164	422
OCT.-DEC.	422	---	4	426	49	33	82	23	105	321
JAN.-MAR.	321	---	1	322	54	35	89	18	107	215
APR.-JUNE	215	---	3	218	36	46	82	17	99	119
MKT. YEAR	163	422	9	594	237	150	387	88	475	119
1974/75 2/										
JULY-SEPT.	119	304	6	429	79	39	118	8	126	303
OCT.-DEC.	303	---	6	309	35	32	67	14	81	228
JAN.-MAR.	228	---	3	231	52	33	85	12	97	134
APR.-JUNE	134	---	5	139	12	46	58	6	64	75
MKT. YEAR	119	304	20	443	178	150	328	40	368	75
1975/76										
JULY-SEPT. 2/	75	383	5	463	81	37	118	3	121	342
OCT.-DEC.	342	---	5	347	25	35	60	10	70	277
JAN.-MAR.										
APR.-JUNE										
MKT. YEAR 3/	75	383	20	478	160-200	160	320-360	60-40	380-400	98-78

1/ LESS THAN 500,000 BUSHELS. 2/ PRELIMINARY. 3/ FORECAST; BASED ON JANUARY 1976 INDICATIONS.

Table 10.--U.S. corn exports, to selected countries, 1971-75
(Grain only)

Country	Year beginning October					Oct.-Dec. 1974 : 1975
	1971/72	1972/73	1973/74	1974/75		
	----- Million bushels -----					
<u>Traditional countries importing</u>						
<u>U.S. corn</u>						
<u>Large Imports--"usually"</u>						
Japan	111	252	251	206	46	49
Netherlands	103	149	137	154	38	44
Italy	91	113	85	107	18	9
Germany, West	56	82	122	115	30	64
United Kingdom	54	65	38	27	10	14
Spain	38	69	101	104	14	17
Mexico	1	35	48	48	11	16
Canada	10	1/31	51	37	9	9
Total	464	796	833	798	176	222
<u>Medium Imports--"usually"</u>						
Korea	17	17	15	14	7	7
Belgium-Luxembourg	15	17	5	13	2	7
Germany, East	12	---	6	2/	2/	1
Egypt	5	6	16	19	4	4
Poland	11	24	19	28	7	22
Greece	7	22	35	20	2	5
Portugal	18	19	22	41	10	10
Romania	7	3	8	30	10	---
Republic of China (Taiwan)	9	23	12	16	2/	8
Total	101	131	138	181	42	64
<u>Small Imports--"usually"</u>						
Israel	3	6	7	9	2	3
Norway	2	4	3	3	2	1
Yugoslavia	16	2	2	---	---	---
France	2/	1	2/	2	1	2/
Lebanon	5	3	3	6	2	1
Czechoslovakia	3	1	1	0	0	---
El Salvador	---	3	2/	1	2/	2/
India	1	2/	2/	0	0	---
Surinam	---	1	1	1	2/	2/
Canary Islands	4	4	3	4	1	1
Philippines	6	2	4	2	2/	---
Costa Rica	---	2	2	2/	2/	---
Tanzania	4	2/	4	9	2	2/
Iran	1	5	2	4	3	1
Chile	8	6	5	2	0	---
Dominican Republic	---	1	2	1	2/	2/
Switzerland	---	2/	1	2	2/	2/
Total	53	41	40	46	13	7
<u>New countries importing</u>						
<u>U.S. corn</u>						
USSR	136	132	129	40	11	98
China, People's Republic of	0	49	59	0	0	---
Total	136	181	188	40	11	98
<u>Other</u>	32	93	27	60	26	58
<u>Grand Total</u>	786	1,242	1,226	1,125	268	449

1/ For consumption within the country February and March 1973 imports estimated.

2/ Less than 500,000 bushels.

Table 11.--Corn, No. 2 Yellow, Chicago: Daily closing cash and December 1975 and 1976 futures ^{1/}
(Dollars per bushel)

October				November				December				January				February			
Date	Cash	Futures	Date	Cash	Futures	Date	Cash	Futures	Date	Cash	Futures	Date	Cash	Futures	Date	Cash	Futures	Date	Cash
		Dec. '75:Dec. '76:			Dec. '75:Dec. '76:			Dec. '75:Dec. '76:			Dec. '75:Dec. '76:			Dec. '76:			Dec. '76:		
1	2.91	3.06	---	3	2.52	2.73	2.68	1	2.67	2.72	2.69	1	HOLIDAY		2	2.66	2.69		
2	2.84	2.97	---	4	2.54	2.75	2.68	2	2.72	2.71	2.69	2	2.54	2.62	3	2.68	2.68		
3	2.88	2.99	---	5	2.60	2.78	2.71	3	2.72	2.69	2.68	5	2.58	2.62	4	2.68	2.67		
6	2.88	2.98	---	6	2.63	2.75	2.68	4	2.72	2.68	2.73	6	2.58	2.64	5	2.68	2.66		
7	2.89	2.99	2.84	7	2.63	2.73	2.68	5	2.68	2.66	2.69	7	2.63	2.69	6	2.69	2.67		
8	2.92	3.01	2.85	10	2.59	2.69	2.68	8	2.58	2.60	2.65	8	2.64	2.70	9	2.69	2.66		
9	2.92	3.00	2.85	11	2.54	2.67	2.65	9	2.58	2.62	2.68	9	2.61	2.67	10	2.71	2.69		
10	2.92	3.00	2.86	12	2.52	2.65	2.63	10	2.56	2.61	2.70	12	2.66	2.70	11	2.70			
13	2.80	2.93	2.78	13	2.52	2.65	2.64	11	2.55	2.61	2.66	13	2.67	2.70					
14	2.79	2.96	2.84	14	2.53	2.65	2.67	12	2.48	2.55	2.60	14	2.66	2.70					
15	2.76	2.93	2.81	17	2.56	2.66	2.65	15	2.46	2.50	2.58	15	2.66	2.69					
16	2.75	2.95	2.83	18	2.52	2.62	2.61	16	2.52	2.55	2.61	16	2.67	2.70					
17	2.72	2.92	2.80	19	2.55	2.60	2.58	17	2.56	2.56	2.65	19	2.67	2.71					
20	2.77	2.93	2.82	20	2.58	2.61	2.58	18	2.56	2.55	2.63	20	2.68	2.71					
21	2.68	2.86	2.77	21	2.63	2.65	2.64	19	2.60	---	2.65	21	2.65	2.68					
22	2.66	2.84	2.80	24	2.73	2.75	2.72	22	2.59	---	2.66	22	2.63	2.67					
23	2.63	2.83	2.81	25	2.70	2.72	2.68	23	2.57	---	2.63	23	2.66	2.69					
24	2.60	2.81	2.80	26	2.72	2.73	2.68	24	2.56	---	2.62	26	2.49	2.59					
27	2.54	2.75	2.76	27		HOLIDAY		25		HOLIDAY		27	2.55	2.63					
28	2.54	2.75	2.76	28	2.70	2.71	2.68	26		HOLIDAY		28	2.57	2.64					
29	2.56	2.77	2.78					29	2.54	---	2.60	29	2.58	2.65					
30	2.60	2.81	2.80					30	2.54	---	2.60	30	2.62	---					
31	2.57	2.78	2.78					31	2.56	---	2.64								

^{1/} Continued from September 1975 Feed Situation, FdS-258.

Table 12.--Cash prices at principal markets, 1971-76

Year begin- ning October	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Simple average
<u>Dollars</u>													
<u>CORN, No. 2 Yellow, Chicago (per bushel)</u>													
1971	1.10	1.07	1.22	1.22	1.21	1.22	1.26	1.28	1.25	1.29	1.29	1.40	1.23
1972	1.32	1.33	1.57	1.58	1.59	1.59	1.65	2.01	2.42	2.52	2.91	2.47	1.91
1973	2.37	2.50	2.68	2.90	3.13	2.99	2.69	2.70	2.93	3.35	3.63	3.55	2.95
1974	3.74	3.48	3.47	3.19	2.96	2.90	2.96	2.82	2.89	2.95	3.12	2.99	3.12
1975	2.74	2.59	2.59	2.62									
<u>CORN, No. 2 Yellow, Omaha (per bushel)</u>													
1971	1.14	1.15	1.24	1.25	1.23	1.23	1.25	1.27	1.23	1.24	1.21	1.28	1.23
1972	1.28	1.34	1.49	1.50	1.55	1.49	1.51	1.84	2.25	2.32	2.71	2.37	1.80
1973	2.34	2.40	2.49	2.71	2.95	2.76	2.49	2.51	2.68	3.19	3.55	3.46	2.79
1974	3.63	3.46	3.36	3.07	2.79	2.75	2.85	2.81	2.84	2.92	3.12	2.95	3.05
1975	2.75	2.55	2.56	2.57									
<u>SORGHUM, No. 2 Yellow, Kansas City (per cwt.)</u>													
1971	1.80	1.91	2.06	2.06	2.07	2.07	2.09	2.08	2.09	2.11	2.05	2.21	2.05
1972	2.17	2.42	2.88	3.06	2.88	2.86	2.83	3.09	3.61	3.93	4.72	4.37	3.24
1973	4.37	4.31	4.37	4.71	4.99	4.64	4.03	3.84	3.99	5.02	5.79	5.64	4.64
1974	6.32	6.10	5.36	4.95	4.55	4.48	4.64	4.60	4.53	4.82	5.13	4.66	5.01
1975	4.53	4.36	4.33	4.36									
Year begin- ning July	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Simple average
<u>Dollars per bushel</u>													
<u>OATS, No. 2 Extra Heavy White, Minneapolis</u>													
1971	.63	.61	.64	.64	.66	.68	.69	.69	.66	.67	.70	.70	.66
1972	.69	.70	.71	.76	.81	.91	.88	.84	.84	.86	.91	.93	.82
1973	.93	1.28	1.32	1.26	1.25	1.32	1.55	1.66	1.52	1.26	1.35	1.43	1.34
1974	1.63	1.68	1.71	1.87	1.80	1.74	1.64	1.64	1.49	1.72	1.78	1.59	1.69
1975	1.59	1.70	1.68	1/1.64	1.69	1.65	1.67						
<u>BARLEY, No. 3 or Better, Feed, Minneapolis</u>													
1971	1.00	.95	.99	1.04	1.04	1.04	1.07	1.07	1.05	1.06	1.08	1.05	1.04
1972	.96	.98	1.11	1.16	1.14	1.27	1.34	1.20	1.19	1.25	1.36	1.51	1.21
1973	1.67	2.12	2.12	2.02	1.80	2.12	2.34	2.51	2.32	1.74	2.10	2.36	2.10
1974	2.36	2.69	2.48	3.07	3.18	2.89	2.82	2.59	2.26	2.24	2.05	1.67	2.52
1975	2.04	2.77	3.00	2.83	2.42	2.23	2.11						
<u>Barley, No. 3 or Better Malting 70% or Better Plumo</u>													
1971	1.25	1.10	1.11	1.17	1.17	1.17	1.20	1.19	1.19	1.19	1.20	1.22	1.18
1972	1.22	1.21	1.26	1.34	1.34	1.45	1.59	1.58	1.61	1.64	1.66	1.74	1.47
1973	1.82	2.45	2.64	2.64	2.62	2.64	2.76	3.27	3.57	2.98	2.94	3.11	2.79
1974	3.38	3.77	4.00	4.42	4.78	4.65	4.62	4.45	4.15	4.34	4.28	3.97	4.23
1975	3.83	3.65	3.93	3.83	3.56	3.35	3.26						

1/ Beginning October 1975 heavy white.

Source: Grain Market News, AMS, USDA.

Table 13.--Average price received by farmers, United States, by months, 1971-76

Year begin- ning October	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average weighted by sales 1/
Dollars													
CORN, per bushel													
1971	1.00	.974	1.08	1.09	1.09	1.10	1.13	1.15	1.13	1.14	1.15	1.22	1.08
1972	1.19	1.20	1.42	1.39	1.35	1.37	1.42	1.61	1.99	2.03	2.68	2.15	1.57
1973	2.17	2.18	2.39	2.59	2.76	2.68	2.41	2.45	2.57	2.91	3.37	3.30	2.55
1974	3.45	3.32	3.27	3.07	2.86	2.67	2.68	2.66	2.68	2.72	2.95	2.76	2/3.02
1975	2.62	2.33	2.37	2.44									2/2.49
SORGHUM, per 100 pounds													
1971	1.76	1.78	1.86	1.89	1.86	1.87	1.87	1.88	1.90	1.98	2.05	2.11	1.87
1972	2.09	2.19	2.72	2.72	2.60	2.60	2.56	2.66	3.10	3.46	3.64	3.87	2.45
1973	3.65	3.66	3.83	4.03	4.38	4.25	3.78	3.59	3.59	4.15	5.07	5.30	3.82
1974	5.78	5.85	5.33	4.96	4.21	4.03	4.15	4.21	4.15	4.25	4.69	4.56	2/4.96
1975	4.43	4.05	4.00	4.06									2/4.23
Year begin- ning July	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Average weighted by sales 1/
Dollars per bushel													
OATS													
1971	.626	.555	.574	.581	.595	.622	.638	.636	.638	.635	.638	.666	.605
1972	.655	.623	.645	.671	.700	.806	.811	.776	.771	.774	.796	.904	.725
1973	.855	1.13	1.09	1.14	1.13	1.20	1.32	1.44	1.40	1.24	1.27	1.30	1.18
1974	1.37	1.55	1.57	1.68	1.70	1.70	1.62	1.58	1.46	1.51	1.54	1.49	2/1.53
1975	1.45	1.44	1.45	1.41	1.40	1.42	1.44						2/1.46
BARLEY													
1971	1.07	.868	.919	.960	1.02	1.04	1.04	1.01	.983	.990	1.04	1.09	.993
1972	1.04	.956	1.07	1.17	1.21	1.32	1.42	1.34	1.31	1.31	1.39	1.55	1.21
1973	1.58	2.10	2.16	2.23	2.10	2.19	2.32	2.52	2.61	2.15	2.19	2.25	2.13
1974	2.33	2.78	2.86	3.11	3.41	3.30	3.17	2.89	2.55	2.72	2.75	2.30	2/2.79
1975	2.35	2.56	2.69	2.68	2.43	2.35	2.31						2/2.52
Year begin- ning May	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Average weighted by sales 1/
Dollars per ton													
HAY													
1971	25.60	24.60	24.10	24.30	24.50	24.90	25.30	26.10	29.20	29.70	29.00	28.00	28.10
1972	31.10	30.90	28.50	29.30	29.80	30.30	31.00	33.00	34.60	35.40	35.40	33.90	31.30
1973	37.50	35.20	36.30	39.00	43.10	46.20	46.80	46.00	47.10	47.10	45.40	44.40	41.60
1974	54.00	47.70	48.20	51.10	51.90	51.50	50.30	50.70	50.10	49.30	49.70	52.40	2/50.80
1975	56.30	53.60	51.20	51.00	50.80	50.30	50.20	51.60	52.70				2/51.90

1/ Includes an allowance for unredeemed loans and purchase agreement deliveries valued at the average loan rate, by States; excludes government payments.

2/ Preliminary.

Table 14—Corn Belt Cattle Feeding

Selected expenses at current rates¹

Purchased during Marketed during	Nov. May	Dec. June	Jan. 75 July	Feb. Aug.	Mar. Sept.	Apr. Oct.	May Nov.	June Dec.	July Jan. 76	Aug. Feb.	Sept. Mar.	Oct. Apr.	Nov. May	Dec. June	Jan. 76 July
	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head	Dollars per head
Expenses:															
600 lb. feeder steer.....	172.26	169.62	158.70	161.76	172.50	190.14	213.00	220.86	208.20	206.04	225.54	228.54	229.56	226.98	224.76
Transportation to feedlot (400 miles).....	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
Corn (45 bu.).....	148.50	147.60	137.70	128.70	121.05	120.60	119.70	120.60	122.40	135.20	124.20	115.20	104.40	105.30	108.90
Slage (1.7 tons).....	39.47	41.62	40.17	38.05	37.11	37.23	36.70	35.68	35.12	37.93	36.86	35.36	33.46	35.22	35.02
30% protein supplement (270 lb.).....	25.78	25.38	24.57	23.22	22.14	22.95	22.82	22.82	22.82	23.76	24.30	24.84	23.36	23.62	23.62
Hay (400 lb.).....	8.16	9.80	10.10	9.80	10.16	10.30	10.05	9.20	8.70	9.10	9.55	9.70	9.80	10.20	10.30
Labor (4 hours).....	9.84	9.84	9.52	9.52	9.52	8.40	8.40	8.40	8.40	8.76	8.76	8.76	9.80	9.80	9.80
Management ²	4.92	4.92	4.76	4.76	4.76	4.20	4.20	4.20	4.20	4.38	4.38	4.38	4.90	4.90	4.90
Vet medicine ³	2.89	2.91	2.90	2.89	2.88	2.92	2.95	2.98	2.99	3.00	3.03	3.03	3.03	3.04	3.07
Interest on purchase (6 mo.).....	9.04	8.90	8.33	8.49	9.06	9.51	10.65	11.04	10.41	9.79	10.71	10.86	9.76	9.65	8.99
Power, equip., fuel, shelter, depreciation ³	13.37	13.44	13.52	13.48	13.42	13.61	13.74	13.88	13.94	14.01	14.14	14.12	14.12	14.18	14.31
Death loss (1% of purchase)	1.72	1.70	1.59	1.62	1.72	1.90	2.13	2.21	2.08	2.06	2.26	2.29	2.30	2.27	2.25
Transportation (100 miles)	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31
Marketing expenses	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35
Miscellaneous & indirect costs.....	5.78	5.81	5.85	5.83	5.80	5.89	5.94	6.00	6.03	6.06	6.11	6.11	6.11	6.12	6.19
Total	452.67	452.48	428.65	419.06	421.06	438.59	461.22	468.81	456.23	469.03	480.78	474.69	461.54	461.21	463.05
	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.
Selling price/cwt. required to cover feed and feeder costs (1050 lb.).....	37.54	37.53	35.36	34.43	34.57	36.31	38.31	38.97	37.83	39.05	40.04	39.39	38.15	38.12	38.34
Selling price/cwt. required to cover all costs (1050 lb.).....	43.11	43.09	40.82	39.91	40.10	41.77	43.93	44.65	43.45	44.67	45.79	45.30	43.96	43.92	44.10
Feed cost per 100 lb. gain.....	49.31	49.87	47.23	44.39	42.32	42.46	42.06	41.84	42.01	45.33	43.31	41.13	38.00	38.52	39.52
Choice steers, Omaha.....	49.60	51.82	50.21	46.80	48.91	47.90	45.23	45.01	41.18						
Net margin/cwt.....	+6.49	+8.73	+9.39	+6.89	+8.81	+6.13	+1.30	+3.7	-2.32						
Prices															
Feeder steer choice (600-700 lb., Kansas City/cwt.).....	28.71	28.27	26.45	26.96	28.75	31.69	35.50	36.81	34.70	34.34	37.59	38.09	38.26	37.83	37.46
Corn/bu.....	3.30	3.28	3.06	2.86	2.69	2.68	2.66	2.68	2.72	2.96	2.76	2.56	2.32	2.34	2.42
Hay/ton.....	40.75	49.00	50.50	49.00	50.75	51.50	50.25	46.00	42.75	45.50	47.75	48.50	49.00	51.00	51.50
Corn silage/ton.....	23.22	24.48	23.63	22.38	21.83	21.90	21.59	20.99	20.66	22.31	21.68	20.80	19.68	20.12	20.60
30% Protein supplement/cwt. ⁶	9.55	9.40	9.10	8.60	8.20	8.50	8.45	8.45	8.45	8.80	8.90	9.20	8.65	8.75	8.75
Farm labor/hour.....	2.46	2.46	2.38	2.38	2.38	2.10	2.10	2.10	2.10	2.19	2.19	2.45	2.45	2.45	2.45
Interest annual rate.....	10.50	10.50	10.50	10.50	10.50	10.00	10.00	10.00	10.00	9.50	9.50	9.50	8.50	8.50	8.00
Transportation rate/cwt. (100 mile).....	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Marketing expenses ⁸	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35
Index of prices paid by farmers (1910=100).....	610	613	617	615	612	621	627	633	636	639	645	644	644	646	653

¹ Represents only what expenses would be if all selected items were paid for during the period indicated. The feed ration and expense items do not necessarily coincide with experience of individual feeders. For individual use, adjust expenses and prices for management, production level and locality of operation.

² Assumes one hour at twice the labor rate.

³ Adjusted monthly by the index of prices paid by farmers for commodities, services, interest, taxes and wage rates. Average price received by farmers in Iowa and Illinois.

⁴ Corn silage price derived from an equivalent price of 5 bushels corn and 330 lb. hay.

⁵ Average price paid by farmers in Iowa and Illinois.

⁶ Converted from cents/mile for a 44,000 pound haul.

⁷ Yardage plus commission fees at a Midwest terminal market.

Table 15—Corn Belt Hog Feeding¹Selected costs at current rates²

Purchased during Marketed during	Nov. Mar.	Dec. Apr.	Jan. 75 May	Feb. head	Mar. head	Apr. head	May head	June head	July head	Aug. head	Sept. head	Oct. head	Nov. head	Dec. head	Jan. 76 May
Expenses:															
40 lb. feeder pig	21.13	25.75	30.10	35.75	39.75	43.05	44.00	44.65	44.10	46.75	59.81	56.55	48.94	44.19	48.38
Corn (11 bu.)	36.30	36.08	33.66	31.46	29.59	29.48	29.26	29.48	29.92	32.56	30.36	28.16	25.52	25.74	26.62
Protein supplement (130 lb.)	15.14	14.56	13.84	13.06	12.74	13.06	12.87	13.00	13.06	13.72	13.91	13.78	13.13	13.39	13.52
Labor & management (1.3 hrs.)	6.38	6.38	6.19	6.19	6.19	5.46	5.46	5.46	5.69	5.69	5.69	6.37	6.37	6.37	6.37
Vet medicine ³	1.45	1.45	1.46	1.46	1.45	1.47	1.49	1.50	1.51	1.51	1.51	1.53	1.53	1.53	1.55
Interest on purchase (4 mo.)	.74	.90	1.05	1.25	1.39	1.43	1.47	1.49	1.47	1.48	1.86	1.79	1.39	1.25	1.29
Power, equip, fuel, shelter, depreciation ⁴	3.51	3.53	3.56	3.54	3.53	3.58	3.61	3.65	3.66	3.68	3.72	3.71	3.71	3.73	3.76
Death loss (4% of purchase)	.85	1.03	1.20	1.43	1.59	1.72	1.76	1.79	1.76	1.87	2.39	2.26	1.96	1.77	1.94
Transportation (100 miles)	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48	.48
Marketing expenses	1.12	1.12	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Miscellaneous & indirect costs	.36	.36	.36	.36	.36	.37	.37	.37	.38	.38	.38	.38	.38	.38	.39
Total	87.46	91.64	93.03	96.12	98.21	101.24	101.91	103.00	103.17	109.26	121.27	116.15	104.55	99.97	105.44
Selling price/cwt. required to cover feed and feeder costs (220 lb.)	32.99	34.72	35.28	36.49	37.31	38.90	39.15	39.60	39.58	42.29	47.31	44.77	39.81	37.87	40.24
Selling price/cwt. required to cover all costs (220 lb.)	39.75	41.65	42.29	43.69	44.64	46.02	46.32	46.82	46.90	49.66	55.12	52.80	47.52	45.44	47.93
Feed cost per 100 lb. gain	28.58	28.13	26.39	24.73	23.52	23.63	23.41	23.60	23.88	25.71	24.59	23.34	21.49	21.74	22.30
Barrows and gilts ⁷	39.52	40.69	46.44	51.19	57.17	58.10	61.23	58.52	49.78	48.33	48.40				
Markets/cwt.	.23	.96	.415	.750	.1253	.1208	.1491	.1170	.288	.133	.672				
Net margin/cwt.															
Prices:															
40 lb. feeder pig (So. Missouri)	21.13	25.75	30.10	35.75	39.75	43.05	44.00	44.65	44.10	46.75	58.81	56.55	48.92	44.19	48.38
Corn ⁸ (bu.)	3.30	3.28	3.06	2.86	2.69	2.68	2.66	2.68	2.72	2.96	2.76	2.55	2.32	2.34	2.42
29% protein supplement ⁹ /cwt.	11.65	11.20	10.65	10.05	9.80	10.05	9.90	10.00	10.05	10.55	10.70	10.50	10.10	10.30	10.40
Labor and management ¹⁰ /hr.	4.91	4.91	4.76	4.76	4.76	4.20	4.20	4.20	4.38	4.38	4.38	4.38	4.90	4.90	4.90
Interest rate (annual)	10.50	10.50	10.50	10.50	10.50	10.00	10.00	10.00	10.00	9.50	9.50	9.50	8.50	8.50	8.00
Transportation rate/cwt. (100 miles) ⁷	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22
Marketing expenses ¹¹	1.12	1.12	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Index of prices paid by farmers (1910=100)	610	613	617	615	612	621	627	633	636	639	645	644	644	647	653

¹ Although a majority of hog feeding operations in the Corn Belt are from farrow to finish, relative fattening expenses will be similar. ² Represents only what expenses would be if all selected items were paid for during the period indicated. The feed rations and expense items do not necessarily coincide with the

experience of individual feeders. For individual use, adjust expenses and prices for management, production level, and locality of operation. ³ Adjusted monthly by the index of prices paid by farmers for commodities, services, interest, taxes and wage rates. ⁴ Average price received by farmers in Iowa and

Illinois. ⁵ Average prices paid by farmers in Iowa and Illinois. ⁶ Assumes an owner-operator receiving twice the farm labor rate. ⁷ Converted to cents/cwt. from cents/mile for a 44,000 pound haul. ⁸ Yardsage plus commission fees at a midwest terminal market.

Table 16.--Livestock, poultry and milk-feed price ratios,
by months, 1971-76

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
beginning	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
October													
HOG/CORN, U.S. Basis 1/													
1971	19.5	19.3	18.2	20.9	23.5	21.2	19.9	21.7	22.7	24.1	24.3	23.0	21.5
1972	23.0	22.3	20.8	22.3	25.4	27.9	24.7	21.9	18.7	20.3	21.0	20.4	22.4
1973	18.8	18.6	16.0	15.5	14.2	13.1	12.7	10.7	9.4	11.8	10.7	10.2	13.5
1974 2/	10.8	11.1	11.7	12.4	13.4	14.3	14.7	17.0	17.6	19.9	19.0	21.2	15.3
1975 2/	22.1	21.0	20.0	19.5									
BEEF-STEER/CORN, Omaha 3/													
1971	28.3	29.0	27.6	28.5	29.5	28.6	27.6	28.1	30.8	31.0	29.5	27.1	28.8
1972	27.3	25.1	24.7	27.1	28.1	30.6	29.8	24.9	20.8	20.5	19.5	19.0	24.8
1973	17.9	16.7	15.8	17.4	15.7	15.5	16.7	16.1	14.2	13.7	13.1	12.0	15.4
1974 2/	10.9	10.9	11.1	11.8	12.5	13.1	15.0	17.6	18.2	17.2	15.0	16.6	14.2
1975 2/	17.4	17.7	17.6	16.0									
MILK/FEED, U.S. Basis 4/													
1971	1.84	1.88	1.85	1.82	1.81	1.78	1.72	1.69	1.66	1.68	1.72	1.75	1.77
1972	1.77	1.75	1.64	1.59	1.57	1.52	1.51	1.40	1.26	1.35	1.26	1.51	1.51
1973	1.57	1.62	1.57	1.53	1.51	1.49	1.51	1.45	1.36	1.29	1.16	1.21	1.44
1974 2/	1.21	1.22	1.20	1.25	1.33	1.38	1.36	1.36	1.36	1.40	1.41	1.54	1.34
1975 2/	1.62	1.77	1.80	1.75									
EGG/FEED, U.S. Basis 5/													
1971	6.9	7.2	8.2	7.1	7.0	7.6	6.5	6.4	6.4	7.0	6.9	7.7	7.1
1972	6.9	8.0	8.5	9.0	7.3	7.7	7.9	6.9	6.4	7.1	8.3	8.6	7.7
1973	8.2	8.6	8.5	8.8	8.4	7.5	7.0	6.2	5.8	6.2	5.7	6.7	7.3
1974 2/	6.5	6.6	7.2	7.1	7.2	7.6	6.5	6.6	6.3	6.4	6.7	7.5	6.9
1975 2/	7.1	8.1	9.0	8.7									
BROILER/FEED, U.S. Basis 6/													
1971	2.7	2.7	2.5	2.8	3.1	3.1	2.7	2.8	3.0	3.3	3.0	3.2	2.9
1972	2.9	2.7	2.6	2.9	3.1	3.5	3.9	3.3	2.9	3.4	4.0	3.5	3.2
1973	2.9	2.5	2.3	2.5	2.8	2.7	2.7	2.7	2.5	2.6	2.3	2.6	2.6
1974 2/	2.5	2.6	2.4	2.8	2.9	2.9	2.9	3.1	3.4	3.8	3.5	3.6	3.0
1975 2/	3.5	3.4	3.0	3.1									
TURKEY/FEED, U.S. Basis 7/													
1971	4.7	4.8	5.1	4.9	4.8	4.7	4.6	4.5	4.5	4.4	4.4	4.3	4.6
1972	4.3	4.5	4.4	4.0	3.7	4.1	4.8	4.2	3.8	3.9	4.3	4.9	4.2
1973	5.0	5.3	4.8	4.0	3.8	3.8	3.4	3.2	3.1	2.9	2.9	3.0	3.8
1974 2/	3.0	3.3	3.6	3.6	3.7	3.8	3.5	3.8	3.9	4.2	4.2	4.2	3.7
1975 2/	4.2	4.5	4.4	4.1									

1/ Number bushels of corn equal in value to 100 lbs. of hog liveweight. 2/ Preliminary. 3/ Based on price of beef-steers 900-1,100 pounds, choice instead of average grade all steers previously published. 4/ Pounds concentrate ration equal in value to one lb. whole milk. 5/ Number of lbs. of laying feed equal in value to one dozen eggs. 6/ Number of lbs. of broiler grower feed equal in value to one lb. broiler liveweight. 7/ Pounds of turkey grower feed equal in value to one lb. turkey liveweight.

Table 17.--Market trends, selected feeds and corn products

Item	Unit	1974/75												Season
		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
WHOLESALE, MOSTLY BULK 1/														
Soybean meal, 44%, solvent, Decatur	\$ per ton	131	126	120	125	128								
Soybean meal, 49-50%, solvent, Decatur	"	142	136	127	132	136								
Cottonseed meal, 41%, expeller, Memphis	"	120	132	128	140	136								
Linseed meal, 34%, solvent, Minneapolis	"	127	118	119	132	125								
Peanut meal, 50%, S.E. mills	"	129	139	134	133	126								
Meat meal, 50%, Chicago	"	149	147	139	148	154								
Tankage digester, 60%, Chicago	"	160	157	149	158	164								
Fishmeal, 65%, domestic, East Coast	"	251	269	270	267	272								
Gluten feed, 21%, Chicago	"	88	90	86	88	93								
Gluten meal, 60%, Chicago	"	209	238	238	241	248								
Brewers' dried grains, 24%, Milwaukee	"	91	99	93	89	104								
Distillers' dried grains, 28%, Cinn.	"	117	122	110	98	108								
Feather meal, Jackson, Mississippi	"	172	170	191	187	189								
Wheat bran, Kansas City	"	86	89	91	92	91								
Wheat middlings, Kansas City	"	86	89	91	92	90								
Rice bran, Arkansas	"	76	75	80	91	95								
Hominy feed, Chicago	"	91	83	81	82	83								
Alfalfa meal, 17%, dehyd., Kansas City	"	81	87	92	99	110								
Blackstrap molasses, New Orleans	"	52	36	37	46	53								
Molasses beet pulp, Los Angeles	"	52	36	37	46	53								
Animal fat, Chicago	"	107	116	111	109	108								
Urea, 42%, N., Fort Worth	¢ per lb.	12.2	13.8	13.8	13.2	13.5								
Urea, No. 2, white, Kansas City	\$ per ton	200	185	158	158	158								
	\$ per bu.	4.10	2.94	2.72	2.74	2.66								
PRICES PAID, U.S. BASIS 2/														
Soybean meal, 44%	\$ per cwt.	9.33	9.23	8.75	8.74	8.81								
Cottonseed meal, 41%	"	9.29	9.44	9.31	9.37	9.47								
Wheat bran	"	7.42	7.20	7.17	7.26	7.36								
Wheat middlings	"	7.30	7.12	7.11	7.18	7.25								
Broiler grower feed	\$ per ton	169	164	158	160	158								
Laying feed	"	153	148	143	143	143								
Turkey grower feed	"	172	170	164	165	165								
Chick starter	"	138	136	133	134	136								
Dairy feed, 16%	\$ per cwt.	8.21	8.19	8.04	8.15	8.14								
Beef cattle feed, 30% and over 3/	"	10.43	10.50	10.00	10.10	10.20								
Hog feed, over 29% 4/	\$ per ton	66	66	67	67	68								
Alfalfa hay, baled	"	2.77	---	2.90	---	---								
Stock salt	\$ per cwt.	2.77	---	2.90	---	---								
CORN PRODUCTS, WHOLESALE 5/														
Corn meal, New York	"													
White	\$ per cwt.	15.47	15.00	14.75	13.70	13.00								
Yellow	"	9.72	9.42	9.12	8.94	8.75								
Grits (brewers) New York	"	9.26	8.77	8.28	8.17	7.94								
Syrup, Chicago West	¢ per lb.	12.85	13.21	12.62	10.70	10.29								
Sugar (dextrose), Chicago West	"	20.75	16.55	16.30	15.30	15.30								
High-fructose (dry weight tank car)	"	25.75	17.47	16.45	15.87	15.77								
Chicago west	"	25.75	17.47	16.45	15.87	15.77								

1/ Feed Market News, AMS, USDA, except urea which is from Feedstuff, Miller Publishing Co., Minneapolis, Minnesota. 2/ Agricultural Prices, SRS, USDA. 3/ Now 32-34%. 4/ Now 38-42%. 5/ Milling and Making News, Kansas City, Mo. 6/ Inufficient quotes for season.

1/ Feed Market News, AMS, USDA, except urea which is from Feedtuffs, Miller Publishing Co., Minneapolis, Minnesota. 2/ Agricultural Prices, SMS, USDA. 3/ Nov 32-34%. 4/ Nov 38-42%. 5/ Milling and Refining News, Kansas City, Mo. *Insufficient quotes for season.

Table 18. --The soybean meal situation

Month	SOYBEANS									
	Crush		Exports		Stocks at processor's (1st of month)		Prices, monthly average, No. 1 yellow, Decatur			
	Cumulative									
	1973/74 : 1/	1974/75 : 1/	1973/74 : 1/	1974/75 : 1/	1973/74 : 1/	1974/75 : 1/	1973/74 : 1/	1974/75 : 1/	1975/76 : 2/	1975/76 : 1/
	Million bushels									
October	63	62	71	47	32	63	90	117	5.62	8.30
November	134	122	142	121	95	125	126	137	5.57	7.54
December	207	183	220	179	136	175	116	132	5.92	7.23
January	282	246		227	186		119	83	6.19	6.38
February	352	300		284	219		123	79	6.35	5.69
March	428	361		342	257		112	65	6.29	5.60
April	498	418		404	293		96	55	5.59	5.55
May	570	471		447	318		82	44	5.47	5.23
June	639	524		483	332		66	38	5.51	5.16
July	711	584		510	363		57	35	7.11	5.60
August	780	648		531	396		42	27	7.76	6.02
September	821	701		539	421		23	27	7.64	5.57
Season Total	821	701	775-825	539	421	475-525	3/171	3/185	380-280	6.25
	Dol. per bu.									
	6.16									
	SOYBEAN MEAL									
	Production		Domestic use 4/		Exports		Prices, monthly average, 44% Decatur			
	Cumulative									
	1973/74 : 1/	1974/75 : 1/	1973/74 : 1/	1974/75 : 1/	1973/74 : 1/	1974/75 : 1/	1973/74 : 1/	1974/75 : 1/	1975/76 : 2/	1975/76 : 1/
	Million tons									
October	1.46	1.47	1.70	1.11	1.06	1.39	.30	.41	.27	160
November	3.15	2.92	3.40	2.30	2.06	2.69	.79	.81	.62	167
December	4.86	4.35	5.23	3.44	3.15	4.17	1.31	1.18	1.05	192
January	6.61	5.84		4.78	4.13		1.77	1.67		172
February	8.27	7.12		5.85	5.05		2.32	2.04		160
March	10.06	8.55		6.98	6.18		2.89	2.32		147
April	11.70	9.92		8.11	7.11		3.43	2.85		117
May	13.40	11.17		9.29	8.16		3.86	3.07		109
June	15.03	12.42		10.26	9.12		4.43	3.39		100
July	16.73	13.83		11.62	10.29		4.82	3.66		124
August	18.33	15.36		12.80	11.44		5.23	4.03		156
September	19.67	16.70		13.85	12.55		5.50	4.30		138
Season Total	19.67	16.70	18.25-19.43	13.85	12.55	13.90-14.50	5.50	4.30	4.30-4.70	146
	Dol. per ton									
	168									
	141									
	143									
	129									

- 1/ Preliminary.
 2/ Season total based on January 1976 indications.
 3/ Stocks in total positions.
 4/ From processing plants.

Table 19.--Hay (all): Acreage, supply, disappearance, and prices, 1971-75

Item	Unit	1971/72	1972/73	1973/74	1974/75 prel.	1975/76 1/
Acreage harvested	Mil. acres	61.4	59.8	62.1	60.6	61.9
Yield per acre	Tons	2.10	2.15	2.17	2.10	2.12
Carryover (May 1)	Mil. tons	22.2	25.5	24.3	25.5	18.6
Production	"	129.1	128.6	134.8	127.1	132.9
Supply	"	151.3	154.1	159.1	152.6	151.5
Disappearance	"	125.8	129.8	133.6	134.0	
Roughage- Consuming Animal Units (RCAU)	"	91.1	93.2	99.5	103.1	107.5
Supply per RCAU	Tons	1.66	1.65	1.60	1.48	1.41
Disappearance per RCAU	Tons	1.38	1.39	1.34	1.30	
Season price received by farmers	\$ per ton	28.10	31.30	41.60	50.80	51.90
Sold by farmers	Mil. tons	25.0	25.8	27.3	25.7	
Proportion of crop	Percent	19	20	20	20	
Value of production	\$ Mil.	3,336	3,732	5,023	5,827	6,513
Value of sales	\$ Mil.	704	808	1,135	1,302	

1/ January 1 indications.

Table 20.--Hay: Supply, May-December and January-April disappearance and prices, 1971-75

Year beginning May 1	Total supply 1/	May- Dec. disap- pearance	Following--			Disappearance per animal unit		
			Jan. 1	Jan.-April	April 30	May	Jan.-	
			stocks	disap- pearance	stocks	Dec.	April	
			<u>Mil. tons</u>				<u>Tons</u>	
1971	151.3	61.9	89.4	63.9	25.5	.68	.71	
1972	154.1	65.3	88.8	64.5	24.3	.71	.70	
1973	159.1	65.5	93.6	68.1	25.5	.66	.69	
1974	152.6	67.4	85.2	66.6	18.6	.65	.65	
1975 2/	151.5	64.8	86.7			.60		
Mid-January	Pennsyl- vania	Wisconsin	Kansas	Georgia	Texas	Colorado	California	
								<u>Prices received by farmers, dol. per ton</u>
1971	30.00	19.50	27.50	31.50	28.50	27.00	34.50	
1972	32.50	22.50	25.50	33.00	30.00	34.00	35.50	
1973	47.00	35.50	29.50	34.00	36.50	45.50	39.00	
1974	43.00	31.00	47.50	36.50	40.50	48.50	70.50	
1975	45.50	36.00	51.00	38.00	50.50	55.50	63.00	
1976	55.50	48.00	51.00	44.00	46.50	54.00	70.00	

1/ Production plus May 1 stocks.

2/ Preliminary.

PERTINENT STATISTICS

Selected livestock and poultry numbers

Class	Date	1974	1975	Change
		<i>Million head</i>	<i>Million head</i>	<i>Percent</i>
Cattle U.S.	Jan. 1			
On feed		13.6	10.2	-25
Dairy cows		11.3	11.2	-1
Other cattle		102.8	110.4	+7
Total		127.7	131.8	+3
Hens and pullets ¹	Jan. 1	295	285	-3
Broilers slaughtered ²	Jan.-Mar.	724	671	-7
Hogs and pigs (14 States)	Mar. 1	48.5	40.3	-17
Cattle on feed (23 States)	Apr. 1	12.3	8.5	-31
Hens and pullets ¹	Apr. 1	292	277	-5
Broilers slaughtered ²	Apr.-June	770	755	-2
Hogs and pigs U.S.	June 1	59.4	48.2	-19
Cattle U.S.	July 1			
On Feed		10.4	9.0	-13
Dairy cows		11.2	11.1	-1
Other		117.4	120.2	+2
Total		139.0	140.1	+1
Hens and pullets ¹	July 1	280	269	-4
Broilers slaughtered ²	July-Sept.	756	774	+2
Hogs and Pigs (14 States)	Sept. 1	50.2	41.5	-17
Cattle on feed (23 States)	Oct. 1	9.2	9.3	+2
Hens and pullets ¹	Oct. 1	279	277	-1
Broilers slaughtered ²	Oct.-Dec.	651	721	+11
Hogs and pigs	Dec. 1	55.1	49.6	-10
		1975	1976	Change
		<i>Million head</i>	<i>Million head</i>	<i>Percent</i>
Cattle	Jan. 1			
On feed		10.2	12.9	+26
Dairy cows		11.2	11.1	-1
Other cattle		110.4	104.0	-6
Total		131.8	128.0	-3
Hens and pullets (laying age)	Jan. 1	285	279	-2
Broilers placed for marketing in	Jan.-Mar.	751	822	+9

¹ Laying age. ² Under Federal inspection.

Feed concentrates consumed by livestock and poultry

	Year beginning October ¹		
	1973	1974	1975 ²
	<i>Million tons</i>	<i>Million tons</i>	<i>Million tons</i>
Annually:			
Concentrates			
Supply	274.2	223.7	258.5
Fed			
Feed grains ...	152.3	114.9	128.9
Wheat	1.7	2.8	4.3
Rye3	.2	.2
By product feeds	34.4	32.7	35.3
Total, fed ..	188.7	150.6	168.7
Quarterly:			
Concentrates fed			
Oct.-Dec.	62.0	50.8	50.3
Jan.-Mar.	51.8	42.9	
Apr.-June	40.4	29.2	
July-Sept.	34.5	27.7	
Total, year ...	188.7	150.6	168.7

¹ Except oat and barley supplies which start July 1.

² Estimated, January 1976.

Meat, milk and egg production

Period	Fed beef ¹	Pork	Broilers and turkeys	Milk	Eggs
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Billion pounds</i>	<i>Million pounds</i>
1972/73					
Oct.-Dec.	4,410	3,507	2,592	27.7	2,212
Jan.-Mar.	4,210	3,262	2,007	28.6	2,186
Apr.-June	3,990	3,178	2,269	31.8	2,208
July-Sept.	3,800	2,791	2,618	28.4	2,130
Total	16,410	12,738	9,486	116.5	8,736
1973/74					
Oct.-Dec.	4,180	3,347	2,680	26.6	2,185
Jan.-Mar.	3,910	3,378	2,173	28.0	2,186
Apr.-June	4,115	3,531	2,458	31.5	2,193
July-Sept.	3,510	3,243	2,725	29.0	2,118
Total	15,715	13,499	10,036	115.1	8,682
1974/75					
Oct.-Dec.	3,375	3,431	2,397	26.9	2,122
Jan.-Mar.	3,400	3,043	1,999	28.1	2,098
Apr.-June	3,040	2,914	2,351	31.4	2,078
July-Sept.	2,940	2,512	2,705	28.7	2,095
Total	12,755	11,900	9,452	115.1	8,393
1975/76					
Oct.-Dec.	2,910	2,750	2,627	27.3	2,123

¹ Estimated from Commercial Slaughter

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FEBRUARY 1976

Weights, Measures and Conversion Factors

Bushel weights:

Wheat & soybeans = 60 lbs.
Corn, sorghum & rye = 56 lbs.
Barley (grain) = 48 lbs.: malt = 34 lbs.
Oats = 32 lbs.

1,000 kilograms
36.7437 bushels wheat or soybeans
39.3679 bushels corn, sorghum, or rye
45.9296 bushels barley
68.8944 bushels oats

Bushels to metric tons:

Wheat & soybeans = bushels x .027216
Barley = bushels x .021772
Corn, sorghum, rye = bushels x .025400
Oats = bushels x .014515

Area:

1 Acre = .404694 hectares
1 Hectare = 2.4710 acres

1 Metric ton equals:

2204.622 lbs.
22.046 hundredweight
10 quintals

Yields:

Wheat = bushels per acre x 0.6725 = quintals per hectare
Rye, corn = bushels per acre x 0.6277 = quintals per hectare
Barley = bushels per acre x 0.5380 = quintals per hectare
Oats = bushels per acre x 0.3587 = quintals per hectare

